

Variants of musical structures in transposed repetitions in Chopin's works

Dedicated to Wojciech Nowik

Since the beginning of the classical period, at the latest, works of music contain repeated sections, which may be more or less exact repetitions. Repetitions may be in the same key and register or transposed. They may be on the level of syntactical segments, for example, such as repetitions of motives, phrases or of periods, (referred to as the micro-structure), or they may be on the level of large parts of a whole movement, the so-called “musical form and its parts”, (the macro-structure). The most important form of the time, the sonata form, includes a repetition of the exposition in the recapitulation. In the recapitulation, the beginning of the exposition normally occurs as a repetition without transposition, and the second half of the recapitulation occurs in the main key, in transposed form compared to the exposition, where this part occurred in a key different from the main key. (There are of course exceptions to this scheme, especially in the case of Chopin.) Another musical form, which includes transposed and non-transposed repetitions of its parts, is the rondo form. Usually the principal theme is always in the same key in its repetition and the episodes are in different keys, especially when a later episode has the same musical structure as a former episode. Even so-called free forms, like the fantasy, may have transposed repeat-sections.

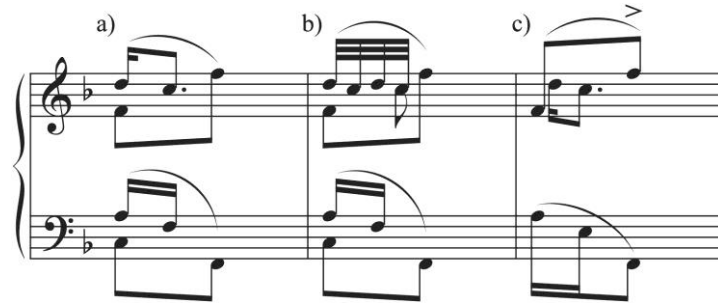
Transposition and Sound Character

Here we shall consider some characteristic examples of transposed repetition, on the level of the macro-structure. The focus will be on the differences in structure between the actual written form of the transposed repetitions in question and a literal transposition of the initial parts. Perhaps the most striking example regarding the extension of the repeated structures in relation to the piece as a whole, can be seen in Chopin's Study in F major, op. 25 no. 3. The first eight bars of this piece build up the theme. These bars in the key of F major are followed by a repetition of the first section, with a small variation in the figure for the right hand: the motive of a falling second is diminished in two repeated seconds, in a kind of ornament (Example 1a and 1b)¹.

¹ See H. Kinzler, *Frédéric Chopin. Über den Zusammenhang von Satztechnik und Klavierspiel* [On the relation between the technique of piano writing and piano playing], Munich and Salzburg 1977 (= Freiburger Schriften zur Musikwissenschaft; vol. 9), p. 156–160.

Example 1

Study op. 25 no. 3, bar 1, 9 and 29



Returning to the initial form of the figure – we are still in F major, a twelve-bar section of transition leads from the initial key to B major, where we reach the middle of the etude. Because this section is moving downwards, we arrive at a register nearly half an octave lower than that of the beginning. Now the second part of the etude begins, with a (transposed) repetition of the theme, followed by the (transposed) repetition of the transition part, (a repetition of the theme itself is omitted), which then leads back to the initial key: F major – two intervals of a tritone summing up to an octave². We find the theme again, followed by a coda with a special chromatic harmony and finally, a variation of the motive of a second leading into a trill. As one can easily imagine, the literal transposition of the theme and the transition part end indeed in F major again, but we are now an octave lower. Chopin would have had to insert an additional change of register had he wished to repeat the theme in the same register (to get a kind of A-B-A' Coda-form). We find such a leap in bar 41 (Example 2). In the example, the notes with the downward stems refer to the melody of the initial part (with its repetition of bar 1 to 8) and are transposed (upwards) from F major to C major, while the notes with the upward stems are a representation of the transposed part, beginning with bar 29, transposed (upwards) from B major to C major.

Example 2

Study op. 25 no. 3, bar 1–29 combined with 29–49, transposed versions of the main melody

² To be exact: the addition of two intervals of an augmented fourth or of two diminished fifth build up respectively an augmented seventh and a diminished ninth. Therefore, the end of the transposed repetition would not stay in F major but in E# major. To avoid these complications, Chopin made an enharmonic change from bar 44 to 45. See also in Example 2 bar 25 to 29 in relation to bar 45 to 49.

Two points are of special interest. Firstly, the additional leap in the structure, from the first to the second beat of bar 41, is embedded in a surrounding of “regular” leaps. The theme itself has, at the ends of the first and the second phrase, octave transpositions of the figures of the right (and partly of the left³) hand. Within the transition part, we find transpositions of the whole musical structure an octave upwards and then downwards: in bars 23 and 25 (in each case, from the first to the second beat of the bar), these segments have a (transposed) correspondence to bars 43 and 45. The octave leap in bar 41, necessitated by the transposition of the structure as a whole, is now a kind of reference to the normal leaps within the initial structure and its repetition. (It is possible, with respect to the genesis of the work, that Chopin had inserted the leaps in bars 23 and 25 in a later stage of the composition, to conceal the “necessary” leap of bar 41.) Secondly, if one transposes a musical structure up or down, the brightness and size of the sound changes. For example, the interval of a tenth, C - e, sounds much brighter and bigger than that of one from c - e¹, while the tenth ₁C - E is more “noisy”. We can observe this fact for instance, in Chopin’s Polonaise in *Ab* major, op. 53: the first time, the main theme appears an octave lower than in all other cases. At the last part of the theme (bar 29), the left hand is build up by arpeggiated triads with the ambit of a tenth. The fourth chord, which by analogy should be the triad ₁E \flat - ₁B \flat - G \flat , is replaced by the non-arpeggiated interval of an octave (₁E \flat - E \flat). In all the other, similar cases, we find indeed the triad E \flat - B \flat - g \flat (bar 45, 77 and 167).

³ In the left hand of bar 4, the first to the second and the second to the third beat only have chord inversions: an octave transposition only happens between the first and the third beat, while in bar 8, there are exact octave transpositions between all three beats, just as in the right hand. Perhaps the reason that Chopin did not construct bar 4 analogously to bar 8, that is, as an octave transposition of the whole structure from beat to beat, is to be seen in the fact that this hypothetical version would go up to g⁴ and thus exceed the f⁴-limit of the keyboard.

Example 3
Polonaise op. 53, bar 29 and 45

Ped. * Ped. * Ped. * Ped. * Ped. * Ped. * Ped. * Ped. *

Ped. * Ped. * Ped. * Ped. * Ped. * Ped. * Ped. * Ped. *

Transposition and Characteristics of Keys

What is true for the transposition by the great interval of an octave up- or downwards is still true for transpositions by smaller intervals. This is a well-known problem: for example, when a Schubert “lied” is transposed upon request of the singer, the piano accompaniment receives a different sound colour. Additionally, a transposition changes the specific character of the key: a prelude in F# major “sounds” different from the same prelude in F major – one can even imagine a difference in sound if a piece is “transposed” from G# major to Ab major⁴. We can observe this effect in our etude. Starting in F major, the musical structure is mainly in the ambit from F to f². The written instruction “leggiero” indicates the character of the piece. When transposed a tritone down, beginning “in tempo” in bar 29, the sound is much stronger and the figure of the left hand is simplified but sounds brighter (Example 1 c). The higher register of the accompaniment in the left hand goes back to the form of the beginning of the

⁴ In the second movement of Chopin’s E minor Concerto, op. 11 the Bronislaw von Pozniak-edition (Peters 2895a, Plate-No. 8358) is notating the original G# major section bar 80–100 in Ab major. Some pianists would play the Ab major version more “softly”.

etude⁵. The fact that the etude starts in a flat key and has a section in the middle in a sharp key supports the idea that there is a change in the character through the change of the key.

Even if the repetition of a section occurs transposed by a small interval, we can observe the difference between a sharp key and a flat key. An interesting example is Chopin's Rondo op. 1. Here we find an episode – “Più lento”, bar 65 f. – in E major which is repeated later on in Db major (bar 275 f.).

Example 4

Rondo op. 1, bar 65–69 and 275–279

The image shows two systems of musical notation for Chopin's Rondo op. 1. The first system, starting at bar 65, is in E major (one sharp) and is marked "Più lento" with a tempo of 132. It includes the instruction "con molta espress." and a piano (p) dynamic. The second system, starting at bar 275, is in D-flat major (two flats) and is also marked "Più lento" with a tempo of 132. It includes the instruction "a tempo" and a piano (p) dynamic. Both systems feature a right hand with a melodic line and a left hand with a rhythmic accompaniment of chords.

The “sharp”-section has in its accompaniment in the left hand chords, the “sharp” sound of triads in close position, representing the layer of the middle voices. When repeated, there are only intervals of a sixth making up the middle voices. The structure as whole is mainly in open position. The Db Più lento episode follows immediately a greater section – equally in Db major – which ends with arpeggios in open position, a musical structure which can be seen to be an early anticipation of the arpeggios in Chopin's Scherzo op. 31⁶.

⁵ In the whole of bar 32, in the left hand, we still have the initial figure, while the new left hand figure in bar 36 is maintained when it is transposed to the higher registers. Beginning with the second beat of bar 41 – our above mentioned “necessary” leap, the version of the left hand is the initial one and remains until the end of the etude. The difference between bar 32 and 36 has to do with the fact that Chopin first had to write a seventh chord and in the later case, a single triad, (therefore, the first beat of bar 32 is altered as well, although there is no great change of the register at the beginning of the bar).

⁶ For example, bar 117 to 129.

Transposition and the Limits of the Keyboard

In Chopin's Rondo op. 1, we can observe a further compositional problem resulting from the shifting of a musical structure upwards or downwards. If the initial structure is near to the upper or lower pitch-limits of the instrument, it is possible that a transposition of the structure would exceed these limits⁷. The example here in op. 1 is on the level of the micro structure and is not a literal transposition.

Example 5

Rondo op. 1, bar 5–8, bar 5–8 in a transposed version, and bar 13–16

The image shows three staves of musical notation for Chopin's Rondo op. 1. Staff (a) shows the original theme starting at bar 5, with an 8va and 15ma interval marked. Staff (b) shows the theme transposed up an octave, with an 8va and 15ma interval marked. Staff (c) shows the theme in a related key, with an 8va and 15ma interval marked. The score is in 2/4 time and C minor.

The main theme of the rondo starts in C minor and is built of a double repetition of a one-bar structure with the ambit of a sixth interval. With each repetition, the phrase is transposed an octave higher (Example 5 a). Eight bars later, the theme is repeated in the related key, which produces an upwards shift by the interval of a minor third. The highest point in the C minor version is an eb^4 (bar 7); the shifted phrases (Example 5 b) would reach the g^4 (bar 15). But the f^4 is the highest key of the pianos for which Chopin normally wrote his compositions. (There is only one bar, in a late work, which exceeds this limit⁸ – the Barcarole op. 60: in its penultimate bar, we find a single $f\#^4$). Chopin's solution for this problem (Example 5 c) is subtle. He did not go to the third degree of the Eb major tonic – as would be required by regular sequencing – but only to the first (combined with an upper auxiliary note), and replaced the leap from the eighth

⁷ A study by F. Bruckmann is devoted to this problem in Beethoven's works for piano: *Zusammenhänge zwischen Klavierbau und Klavierkompositionen im Schaffen Beethovens* [On relations between piano building and compositions for piano in the work of Beethoven], Cologne, 2. ed. 1993.

⁸ Z. Chechlińska, *Zakres materiału dźwiękowego i jego dyspozycja w utworach Chopina*, "Muzyka" 1969 no. 1, p. 54.

to the fifth degree, seen in bar 7 to 8, by a segment of the scale, filling up the leap. We can observe precisely this segment of the scale previously, in the C minor section in bar 9, and consequently, we have an analogy in the melody between the two following bars in both versions: bar 10 (and not bar 8) is the model for bar 16. A further subtlety is the increasing of the number of regular semiquavers in the construction of bar 15. This increasing of fluid semiquavers, respectively, decreasing of the scherzando demisemiquavers, with its rests placed in front of the notes, is the principle of variation which is used afterwards by the repetition of the section of bar 13, beginning in bar 21.

That which is shown here for the upper limit of the keyboard can also be observed for the lower. In his notated and published works, Chopin normally only goes down to the ${}_1C$. But in his very first compositions, he respects as the lower limit a note a little bit higher – the ${}_1F$, the usual ambit of pianos of the 1820th (especially those in Vienna). There is no note lower than an ${}_1F$, for example, in Chopin's op. 1, 3 and 5, as in the juvenile works unpublished during his life time – the early polonaises and the Rondo in C major, op. 73. (There is an exception in the trio of the B minor polonaise from 1826. Here we find, only once as a special sonoristic effect, an octave: ${}_1Db - Db$.)

The fact that a composition does not exceed a certain limit in its pitches does not necessarily mean that the reason is the limit of the ambit of the keyboard on which it is to be played. Going to the lowest reaches is mostly a special event within Chopin's works (often only at the beginning of a musical section), not the regular register he uses. For example, the first and last movement of Chopin's E minor concerto does not go lower than respectively the ${}_1F$, – or to be exact, than the ${}_1F\#$. This is an astonishing fact in a work of virtuosity in the key of E minor – one would expect, from time to time, an ${}_1E$. The second movement, not virtuosic but lyrical, has an ${}_1E$, however (first note of the left hand in bar 76), and even a ${}_1D\#$ in bar 94. The segment with the ${}_1D\#$, as the final point of a descending scale of the bass line in octaves (from ${}_1E\#$ over ${}_1E$ natural to ${}_1D\#$), is part of a greater section which is the transposed repetition of a prior section. The initial section – a kind of “second part of the second theme” –, which starts in bar 31 and leads up to bar 52, is in B major (that is, the key a fifth higher than the main key of the movement and the usual contrasting key for piece in a major mode), but it is a transposed (and varied) repetition – bar 80 to bar 101 – shifted an interval of a minor third downwards (that is, the related key to B major, however not as a minor mode but as its major variant, an unusual choice of key). The repeated section is now in $G\#$ major⁹, therefore a line $(E-D\#)-{}_1G\#-{}_1G$ natural- ${}_1F\#$ will become the bass line mentioned above.

⁹ In the first movement, we find a similar key-relation for the main sections: E major – G major instead of E minor – G major.

Most of the differences between these two sections consist in the ornamentation of the melodic line in the right hand (the left hand is nearly an exact transposition¹⁰). The greatest difference that we can find is in the sections discussed previously. It is remarkable that the “first theme” is much more varied when it is repeated (without transposition) in bar 54 (with upbeat): not only the right hand has many more embellishment notes, the accompaniment in the left hand has differences including a deviation in the bass line, and – last but not least – the “first theme” starts without an accompaniment of the orchestra, while its second occurrence is accompanied by strings.

Returning to the second part of the second theme with its repetition and the comparison of bar 45 with bar 94, there is first a *leggiero* stepwise double sixth passage in the right hand with a b^3 as highest note, but in the transposed repetition, Chopin wrote a rapid scale passage from the $e\#^4$ to the $f\#\#^1$ [f^1 double-sharp]. One should notice that the note at the beginning of the scale – the $e\#^4$ (which is identical to the key for f^4) – is the highest note on Chopin’s keyboard. And there is even a kind of preparation for this remarkable enlargement of the ambit: three bars before – bar 91 – Chopin not only wrote a downwards transposition of bar 42, he additionally shifted every third semiquaver of the figures in the right hand an octave higher¹¹.

Transposition and Playability

One small detail should be of interest with respect to the subject discussed here. In bar 44, the last chord in the right hand is a seventh chord within the span of an octave, whereas in bar 93, the analogous chord is a four-two chord within the span of a ninth.

Example 6

Concerto op. 11, 2nd movement, bar 42 f. and 92 f.

¹⁰ Some of the differences have to be seen in connection with the orchestral part, which deviates in the repetition. For example, on the last beat of bar 33, there is no third $d\#$ to be heard, neither in the left hand of the solo part nor in the violins. In the corresponding bar 82, we have $b\#$ in the piano and a $b\#\#^1$ in the first violins.

A further example can be seen in bar 84/85, in comparison with bar 35/36. In the transposed repetition, the voice built up by the highest notes of the broken chord is altered: $d\#^1 - c\#^1 - c\#^1 - d\#^1$ should become the line $b\# - a\# - a\# - b\#$, but Chopin actually wrote $b\# - c\#\#^1$ [c^1 double-sharp] - $d\#^1 - d\#^1$. The second violins double this line. At this point, there is also a melodic variant: in bar 85, the $g\#^2$ comes a crotchet earlier, compared with bar 36 – it is no longer on the second beat and has been constructed as an augmentation. The dotted quaver followed by a semiquaver of bar 36 has become a crotchet followed by a quaver. The phrasing slurs underline this motivic variation.

One last detail: the crotchet on the second quaver of bar 38 is altered to a minim in bar 87. There is a corresponding alteration for the pedal.

¹¹ This octave transposition would also be possible in bar 42 without exceeding the upper limit of the instrument.

43 *con forza*

92 *cresc.*

The fact that Chopin did not use the chord with the greater ambit in both cases can be explained by the technique of piano-playing. In bar 93, with its special distribution of black and white keys, the chord is easy to play with a hand of normal dimensions, whereas the same hand has difficulties playing the same chord placed a minor third lower (b^1 - $e\#^2$ - b^3 - $c\#^3$): the fifth finger tends to touch the a^3 as well, and the thumb has a problem avoiding the c^2 natural. The counterpart to the $g\#^1$ of the fourth crotchet of bar 93 – the second b^1 in bar 44 – is to be played there by the thumb of the right hand¹² on the last quaver of the bar. (Pedal is obligatory.) On the other hand, there is an analogy between the third and fourth crotchets in both parts of the left hand: respectively two octaves and two chords.

Analysing a chord by taking into account the special problems of playing it on the keyboard is not unacceptable if one keeps in mind that in the same movement, we find a chord where the thumb has to play the two notes of a third without an arpeggio, which is only possible if the third consists of a special combination of black keys, namely $d\#$ and $f\#$, respectively $a\#$ and $c\#$. A similar problem – not physical, but dynamic – in relation to the position of the white and black keys could occur with notes in a fast tempo. The most instructive

¹² It is also possible to use the second finger.

example is the C major etude, op. 10 no. 1. If one transposes it from C major to C# major, respectively to Db major, one increases the difficulties of playing¹³.

Transposition of the Parts for the Left and the Right Hand in Opposite Directions

A second example of problems regarding the limits of the keyboard, in writing a transposed repetition, is to be found in the early Rondo in C major, op. 73. In the first (virtuosic) episode in A minor, there is a passage starting with an e⁴ as the highest note (bar 65)¹⁴. The bass notes there play an octave, ₁A - A. The passage is repeated two bars later, sequenced down by the interval of a third – therefore we have the bass note ₁F - F. The whole episode is repeated later, beginning in bar 253, but in E minor, that is, a transposition by the interval of a downward fourth. The highest note is now an a³, while the bass should be first ₁E – E, and two bars later ₁C - C. In both cases, the bass line will exceed the limit of ₁F. Chopin's solution of this problem is surprising: he transposes the part of the right hand regularly, that is, a fourth downwards, and the part of the left hand a fifth higher – the crucial notes are now E - e and C - c. Because the parts of the right and the left hand are in contrary motion, the transposed and compressed version has a collision of the hands: the highest notes in the bass line in bar 254 and 256 – respectively a g¹ and an e¹ – fall together with the lowest note of the figurations at the same place¹⁵. This is the reason we can assume that Chopin wrote this version with respect to players owning only a piano with the ambit ₁F - f⁴. (The manuscript was given to an editor in Vienna, Tobias Haslinger.) It is striking that Chopin, when he transformed this Rondo into a version for two pianos (but which was later on published before the version for one instrument), wrote at this point a transposition downwards for both structures¹⁶.

¹³ It is not by chance that one of Godowsky's Studies based on Chopin's Etude op. 10 no. 1 stays in Db major (Vol. I no. 2, for the left hand alone). For the same reason, in Chopin's original study, most editors suggest a different fingering when there are black keys to be played in uncomfortable positions (for example in bar 30 or 35). Beethoven sonata in C major, op. 2 no. 3 has a main theme in its last movement consisting of shifted six chords in C major which are nearly impossible to be played in the right tempo when they are transposed for example to Db major. See C. Canisius, *Goethe und die Musik*, Munich 1998 (= Serie Piper; vol. 2851), p. 178 (erroneously Canisius speaks of the last movement of op. 2 no. 1 instead of no. 3). What he states there for the Janko-keyboard is equally true for a transposed version on a normal keyboard.

¹⁴ For an harmonic analysis of this part see H. Kinzler, *Über die pianistische Erfindung musikalischer Strukturen in Chopins Rondo C-Dur op. 73* [On the pianistic invention of musical structures in Chopin's *Rondo in C major Op. 73*], in: *Chopin and His Work in the Context of Culture*, ed. I. Poniatowska, Kraków 2003, vol. 1, p. 430 f.

¹⁵ In the Paderewski-edition, we find notes in brackets for the left hand where there is the collision of the left and the right hand in bar 254 and 256, while in the manuscript – as to be seen in the facsimile shown in the same edition – Chopin has deleted the two crucial notes in the left hand.

¹⁶ Piano 1 has in the right the original right hand of the old version, the left hand has an additional line not found in the version for one player. Piano 2 has the bass line of the left hand again in the left hand and the right hand has to play this line one octave higher – the only addition is a trill on the second quaver note of the first bar.

Example 7

Rondo op. 73, bar 65–68 and bar 253–256

The image displays two musical excerpts from Chopin's Rondo op. 73. The first excerpt, starting at bar 65, shows a right hand with a 'legatiss.' marking and a left hand with 'molto marcato'. The second excerpt, starting at bar 253, shows a right hand with '(f) marcato' and a left hand with '(dim.)'. Both excerpts include an '8va' marking above the right hand staff, indicating an octave shift.

Chopin's solution is not new, for the problems with registers when a musical structure has to be transposed by shifting the parts of the left and right hand in opposite directions. In Mozart's piano sonatas, for example, the problem is intensified. The sonatas being mostly in major keys, the structures must regularly be transposed by an interval of the fifth (and not only by a third) since the ambit of the keyboards for which Mozart wrote his sonatas is rather small: ${}_1F - f^3$, only five octaves. In Mozart's sonatas, we find sections of the second theme which are transposed upwards in both hands by the interval of a fourth, others are transposed a fifth down in both hands and in others, the right hand is transposed a fifth down while the left is transposed a fourth up. But even the opposite form – right hand a fourth up, left hand a fifth down – can be found, but is seldom used. The most striking example seems to be the first movement of the B major sonata, KV 333 where not only all forms were used within a passage of 16 bars – but also the special case of transposing the part of the right a fourth up and the left a fifth down, with an octave doubling as a result. We can see this effect in an example of Chopin.

Alteration of Single Notes for the Purpose of Remaining within the Ambit (Further Examples)

When writing the sequence downwards two bars later, Chopin changes the musical structures between the two players.

It is not always necessary to transpose a whole layer an octave higher or lower, however, to stay within the ambit of the instrument when a section is repeated in transposition. The problem can often be managed by varying a few notes, as shown above in the discussion of the main theme of the Rondo op. 1. An interesting example for this kind of structural variant can be found in the Rondeau à la Mazur op. 5 in a passage of the episode, just after the section which is a kind of “second theme”. This second theme itself is presented in the key of Bb major; this is a fifth lower as the key of the couplet, the first or main rondo theme. In the second presentation of this “second theme”, we find it transposed to C major. This key disposition is maintained for the passages following the theme (Example 8). For an easy comparison, in the example both parts are written again in the same key – C major –; for this, the first has been transposed a second higher (naturally the upper limit for this “version” has to be transposed and will become the g^4 instead of f^4 .)

Example 8

Rondeau à la Mazur op. 5, bar 127–128 combined with 329–330 and bar 135–137 combined with 337–339, all transposed

The image displays two examples of musical notation, labeled 'a)' and 'b)', comparing two versions of a passage from the Rondeau à la Mazur op. 5. Both examples are in 3/4 time and C major. Example 'a)' shows two staves: the top staff contains bars 127-128 and the bottom staff contains bars 329-330. A vertical dashed line separates the two bars in each staff. Example 'b)' shows two staves: the top staff contains bars 135-137 and the bottom staff contains bars 337-339. A vertical dashed line separates the two bars in each staff. In both examples, the notation includes treble clefs, 3/4 time signatures, and various musical symbols such as triplets, slurs, and accidentals. A dashed line labeled '8va-' indicates an octave transposition in part (b).

The first difference is in bar 127 versus 329 (Example 8 a). Bar 127 starts in the right hand with an octave leap downwards on the third degree, then an arpeggio up to the third degree two octaves higher, ending the bar with an octave leap

downwards. In bar 329, we find a rest after the first note which is one octave higher than that of the analogous bar, and then – on the third triplet quaver, the arpeggio starts (again on the third degree). Because of this shifting in time, of the beginning of the arpeggio, there is not enough room in the bar to write an octave leap downwards, and the arpeggio downwards of the following bar starts a half tone lower. The difference between the bars with which the passage part begins is determined by the different endings of the second theme section. For the greatest part of the second theme section, the later version is an exact transposition of the former, except that at the end of the first, Chopin writes an *appassionato* section (bar 123 to 127) which consists of the sequenced repetition of a one-bar unit, building an arpeggio downwards (the other parts of the theme are regular four-bar-units without large arpeggios). The last repetition – an arpeggios from eb^3 down to f^1 (respectively transposed: from fb^3 down to g^1) – defines the register and the pitches of what follows. In the repetition of the section of the second theme, Chopin cancels the *appassionato* section and writes a regular continuation with a c^3 as the last note of the melody, which then becomes the beginning of the passage.

One should notice that for bar 128 up to bar 134, we have no differences to bar 330 to 336 (apart from the transposition), but within this passage we notice a further shifting of the position of the note on the third degree. While bar 129/130 is a kind of repetition of bar 127/128, adjusted to new chords (a dominant seventh chord of the dominant followed by the single dominant seventh chord), and bar 131 to 134 seems to be a regular repetition of the four-bar unit preceding, a nearer look shows subtle differences in the distribution of the notes; especially the broken octaves vary throughout.

A further difference is to be seen between bar 135 and 337 (Example 8 b): both start with an arpeggio on the third degree, but the last note in bar 135 is the fifth degree in the four-line-octave, whereas in bar 337 it is only the third degree (and not a characteristic octave leap from the penultimate note, like in bar 135). This difference has its reason in Chopin's intention to go as high as possible with the figure: in bar 135, the highest note within the harmony is respectively the g^4 , and in the original key, the f^4 ; in bar 337, the highest note within the harmony is the eb^4 , since a g^4 is beyond the limit. The different notes at the end of respectively bar 135 and 337 have consequences particularly for the following bars. The harmony of these bars is a four-three chord and in one case, we have the fourth on top, while in the other, the third. This is transmuted in the next bar: a dominant seventh chord with respectively the fifth and the seventh on top. Yet a further consequence is that different notes can be tied between the arpeggio and

the following chord¹⁷. The argument of going to the upper limit of the keyboard is still valid in order to explain the differences between bar 139/140 and 341/342. The differences between bar 138/142 in comparison with bar 240/344 have nothing to do with the limits of the keyboard, but one can assume that this variation is due to the disposition of the register, particularly in the following sections.

A few remarks should be made about the part of the left hand in the sections being compared. In both versions, we have a one-bar model for the left hand: on the first beat, we have a quaver as bass note in the great octave, followed by a minim on the second beat, located in the small octave, and an interval the duration of a minim on the third beat. In the second version, we have additionally the lower octave to the bass note. The bass line of both sections is – apart from the transposition – the same. This is not true for the inner voices. Chopin distributes the rest of the chord on the second and third beat differently in both versions. For example, in the inner voice marked by the minim, we first have the octave over the bass and an alteration to the second degree while, in the later version, there is a line from the fifth over the diminished sixth to the normal sixth and back again to the fifth. These variations in the conception of the inner voices have nothing to do with any limitations; the reasons seem to be the connection with the end of the section before and the maintaining of the rules for resolving the leading notes.

We can observe greater differences in those parts of the section where we have passages in the left hand (bar 137/138 and 141/142 respectively 339/340 and 343/344). In three of them, we find an ascending line of triplet quavers alternating with notes common to the chord, with lower chromatic neighbouring notes. But these passages differ in regard to the starting note, their positions and their harmonic properties (bar 137, 141 and 343 begin with the neighbouring note, bar 339 with a chord note; in all cases, the alternation is imbedded in a metrical triplet grouping); one passage leads upwards, combined with a diatonic scale section in the opposite direction (second half of bar 137); another section builds up a chromatic scale (bar 141/142)¹⁸.

¹⁷ The f^1 is tied in the old, not tied in the new National Edition; since 139 to 142 is a sequence of 135 to 138 one degree downwards, and therefore 341 to 344 one of 337 to 340, and because on the other hand, the keys in the sections as whole differ in the transposition of a second, we can find the same pitches in 135 to 138 as in bar 341 to 344.

¹⁸ As mentioned above, bar 137 and 343 have the same pitch-classes, for reasons of combining sequencing and global transposition. But in bar 34, the passage not only starts an octave lower than in bar 137, that is, with the neighbouring note respectively to the B (bar 141) and to the $\flat B$ (bar 343): their notation is enharmonically different as well: Bb versus $\flat A\#$.

All the differences discussed in relation to the Rondeau à la Mazur are normally not noticed by the listener and they obviously should not be noticed, because the music in both parts should be heard as a musical part with a transposed repetition afterwards. That means that the properties varied are not main properties, while the essential properties – contour, piano writing and especially the course of harmony and the bass line – are maintained. This is also true for passages of another work, namely the Fantasy op. 49, which also has large transposed repeated sections. However, two further sections of the Rondeau should be compared first. In the Rondeau à la Mazur, we can state that the transposition of the repeated episode is not a transposition by the same interval for the whole episode. They differ from part to part: we can find a part transposed a minor third higher but with an opposite mode (bar 53 f. versus bar 269 f.; we will get an exact transposition if we deviate from the structure of bar 269 f. in those of bar 73 f.).

Problems of Embedding

Another section within the episode is transposed only a minor second downwards from F major (bar 85 to 92) to E major (bar 285 to bar 291), followed by a greater part – the second theme – as already mentioned, transposed a major second upwards from B major to C major.

Example 9

Rondeau à la Mazur op. 5, bar and 89–95 and 289–294

89

tranquillamente e cantabile

289

tranquillamente e cantabile

un poco rallentando

p

tr

In example 9, we hear a tonal break in the repetition, since a transposition of a second downwards is linked with the transposition in the opposite direction. In bar 85 f., we have F major, which is a half cadence in B major, the key of the following part, however in bar 285 f., it is E major, the half cadence of A minor, followed by the second theme in C major – in other words, there is a modulation between two parts of the repeated episode, where the first time, the key was maintained.

Three and “a half” additional differences are of interest. Firstly, the motive of a minor second in bar 90 (with up beat) to 92 is in triple octaves (${}_1F - F - f$ and ${}_1Gb - Gb - gb$), while its equivalent has only double octaves ($E - e$ and $F - f$). The most probable explanation seems to be that the piece was intended to be played on a piano with the ${}_1F$ as the lowest key. Secondly, the first bar of the second theme – bar 93 – has the same one-bar model for accompaniment as all the following bars of the second theme, whereas bar 293 is different from all the following bars. Its construction is a combination of a bass note as a continuation of the line from the bar before (with the pitches: double octave $C - c$) and the tenor voice of the later form (the duration of the octave namely: quaver plus a quaver rest). Thirdly, the last note of bar 292 is a $G - g$ and not – analogous to bar 92 – an $F - f$. The interval of a falling fifth is the main element used to change the key. At least there are no pedal markings, even at the first bar of the repeated second theme. As to bar 290 to 293: perhaps it is intended not to use the pedal – the analogous part has a different dynamic sign (***pp***, not ***p***) and there, pedal is necessary to give the trill a mysterious sound. And in bar 293, the pitches of the tenor voice are $c - e^1 - g - e^1$ and not $e^1 - e^1 - c^1 - g^1$.

Going to the Limits

What was discussed concerning op. 5 and op. 73 can also be seen in a later work of Chopin's. In his “Fantaisie pour le piano forte” op. 49, about 80 bars (beginning with bar 68) are transposed when they are repeated (beginning with bar 235), and another (shortened) section with its transposed repetition (beginning with bar 135) is interpolated. The initial section consists of a row of parts of (mostly) eight bars which are differentiated in their melodic design, in the principles of the harmonic process, in the construction of the bass line, in the piano writing and – naturally – in the character of the musical expression.

Firstly, we should have a look at a part which is a type of passage not unlike those in the Rondeau op. 5. These four-bar units are heard six times: twice, immediately following one another, in the initial section (bar 85–92), twice (transposed), connected in a similar way in the middle section (bar 172–179)

and finally, (transposed differently) in the last section (bar 252–259), also following one another. The first couple starts in *Ab* major and leads to *F* major, followed by *G* major; the second runs from *Gb* major to *Db* major and *Eb* major¹⁹, and the last from *Db* major to *Bb* major and *C* major. They all differ in details. Of special interest are both pairs of bars building up the four-bar-unit. For the highest note of these sections – that is, the last note of third bar of the four-bar units – we observe that Chopin always goes up to the highest note possible within the range of the keyboard, in relation to the underlying chords: *F* major (bar 87) – f^4 , *G* major (bar 91) – d^4 , *Db* major (bar 174) – f^4 , *Eb* major (bar 178) – eb^4 , *Bb* major (bar 254) – f^4 and *C* major (bar 258) – e^4 . One should observe that even in the cases in which the highest notes are the same (f^4), they differ in relation to the key note of the chord.

Example 10
Fantaisie op. 49, bar 85–93

85

The musical score for Example 10, Fantaisie op. 49, bars 85–93, is presented in three systems. Each system consists of a treble clef staff and a bass clef staff. The key signature is three flats (B-flat major). The first system (bars 85–87) shows a melodic line in the treble and a bass line with chords. The second system (bars 88–90) continues the melodic line and bass line. The third system (bars 91–93) features a melodic line with a 'Sua' marking and a bass line with a 'f' dynamic marking. Various annotations like 'Leo.' and '*' are present below the bass line.

¹⁹ Because of the overall tonal disposition of the work, the sequence of chords in the middle section is a little different from those of the outer sections. The first passage as whole leads from *Ab* major to *C* minor – that is, a major third upwards –; the last from *Db* major to *F* minor – still a major third, while in the middle, there is a connection of *Gb* major to *Eb* major – that is, a minor third downwards.

This variability of the highest note of the four-bar-units, resulting from the intention to go as high as possible, has consequences for the shaping of the notes just before and after this point. The different constructions can be easily seen if we contrast the version starting at the highest key note, the G in bar 90 (Example 11 a), with that of the lowest²⁰, the \flat B in bar 253 (Example 11b), by transposing them to the same tonality – here to C major²¹. (In Example 11, the first bars of the four-bar-units are omitted because the relations between them and the second bars are an exact transposition throughout, of the interval of a second.) Example 11 a is a transposition down a fifth, Example 11 b, the interval of a second, but upwards. Not only the notes in the right hand are different, but also the broken chords, which accompany the figurations representing different inversions of the chord.

Example 11

Fantaisie op. 49, bar 90–93 and 253–255, both transposed

The image displays two musical staves, labeled 'a)' and 'b)', representing transposed versions of a passage from Chopin's Fantaisie op. 49. Both staves are in C major. Staff 'a)' is labeled '90' and staff 'b)' is labeled '253'. Each staff consists of a treble clef (right hand) and a bass clef (left hand). The right hand part features a melodic line with a long slur over the first three bars, and a '8va' marking with a dashed line above the final note. The left hand part features broken chords, with a 'Red.' marking below the first bar. The notation is in a standard musical format with notes, stems, and accidentals.

²⁰ Starting from the lowest point allows the greatest distance from the key note up to the highest point. Chopin can thus write a relatively new and more extended form of the passage here: it is interesting to see that in bar 258 (last note) to bar 259 of the autograph, he made changes from a type of literally transposed repetition of the version of bar 91/92 (interval of transposition: a fifth downwards – that is, g^3 -[bar-line]- e^3 - c^3 - g^2 - e^2 - c^2 - g^1 - e^1 - c^1 - g), to the final version with the maximal extension – that is, a solution using the maximum interval of an octave plus sixth between the highest note and its predecessor. See also M. Tomaszewski, *Fryderyk Chopin: Fantazja f-Moll op. 49. Komentarz źródłowy. Wydanie faksymilowe rękopisu ...*, Warszawa 2007, p. 19 a.

²¹ This transposition of bar 253–255 from B \flat major to C major is not identical to the original C major version of bar 257–259!

Yet a further difference can be observed: the first chords in the left hand of the first and second bar of our four-bar-units are three-note chords in extended position, which should be played arpeggiated (bar 85/86 and 89/90, 172/73 and 176/177). In the last – and lowest – section, these chords are reduced respectively to single notes (bar 252/253) and two note intervals of a tenth (bar 257/258)²². The reason therefore is obvious, and the same as in the example mentioned above: a chord would not sound well in this low register.

If we have a closer look at the overall transpositions in opus 49, we will see that the first transposed repetition – the one beginning in bar 155 and ending in bar 179 – has, in respect to the key notes, the interval of a fifth up (the normal key transposition within the exposition of sonata forms)²³, whereas the musical structure as a whole is actually transposed a fourth down. This fourth/fifth-transposition ends with bar 157. From that point on, we will find a new interval of transposition: the whole structure until bar 179 is transposed down by only a second²⁴. Naturally, Chopin modifies the harmony at this point of tonal rupture²⁵, a rupture which however, is integrated in the plan of tonal disposition, since it is the difference of the interval of third – the main element of tonal construction of this piece.

Octave Doubling as a Transposition of a Layer in Two Directions

As to the second overall transposition, which generates the section from bar 235 up until 310, we will find a shifting of the key note a fifth downward (the normal key transposition for the “second theme” within the recapitulation of sonata forms). But the actual shifting of the different layers is differentiated. In the first four-bar-unit, we will find the transposition of a fifth down for the part of the left hand, while the part of the right hand, a one-voice line in the first section, can be seen as a transposition of a fifth down, superimposed with a transposition of the interval of a fourth up, with the result of a melody in parallel octaves. Instead of a one-part melodic line, these octaves produce a kind of intensification of the expression, which is supported by a small but effective

²² Since there are single notes in bar 252 and 253, it is possible that Chopin did not want an arpeggiation of the tenth in bar 256 and 257 – otherwise, there would be a certain kind of contrast between the first four-bar-unit and its transposed repetition, immediately following. Perhaps a similar argument can be used to explain the missing arpeggio-signs in bar 172/173 and bar 176/177.

²³ A repetition of the whole structure by the interval of a fifth upwards would have the result that the highest note in bar 77 – the c^4 – would become a g^4 , a note outside of the range of the keyboard.

²⁴ There are some smaller deviations in bar 169–179. Cf. footnote 15.

²⁵ Besides the alteration of the leap within the melody, which is an octave between the second and the third note of bar 71 and which will become a tenth in bar 158, Chopin alters the expected Eb major chord in this bar to an Eb minor chord, which allows an easy modulation to the new tonality of the following section. Naturally, we also find there a small modification of the bass line.

alteration: there is no longer a break within the melody as is found at the beginning respectively of bar 71 and bar 158 – the melody is syncopated throughout: there are no semiquavers, no quavers, no quaver rests, only crotchets.

Example 12

Fantaisie op. 49, bar 68–74 and 235–241

68

agitato

fz

p

cresc.

Leo *

cresc.

Leo *

235

cresc.

Leo *

cresc.

Leo *

This octave doubling is maintained for small but characteristic parts of the melody in parallel thirds in bar 240 and 241 and beginning with bar 242, we find

a “normal” transposition by the interval of a fourth upwards for the part of the right hand until the middle of bar 261. Beginning with bar 262, a transposition of the interval of a fifth down follows, in the right hand as well in the left. (The second half of bar 261 is “new”, composed “coupling” to connect the upper line of the ending and the new beginning melody.)

As to the progress of the left hand, we observe that, beginning with bar 240, Chopin utilizes the increased distance between the part of the right and the left hand which is due to their shifting in different directions, for an enlargement of the accompanying chord figuration of the left hand²⁶ – especially in bar 243. Starting with bar 244, Chopin presents a new solution for the registral disposition of the left hand.

Example 13

Fantaisie op. 49, bar 77 f. and 244 f.

The image displays two systems of musical notation for Chopin's Fantaisie op. 49. The first system, labeled '77', shows bars 77-84. The second system, labeled '244', shows bars 244-251. Both systems are in G major (one sharp) and 3/4 time. The right hand (treble clef) features a melodic line with a trill in the final measure of each system. The left hand (bass clef) features a rhythmic accompaniment of eighth notes. Pedal markings are indicated by 'Ped.' and asterisks. A dashed line labeled '8va' indicates an octave transposition for the right hand in the first system. A '3' indicates a triplet in the right hand of both systems.

²⁶ In bar 240 to 243, we find a new line for the melody of the inner voices generated by the highest note of each semicircular figure in the left hand: $a - bb - a - db^1 - c^1 - db^1 - a^1$. It is not problematic that on the first beat of bar 240, the right hand has the interval $a^1 - a$, and its lower note has a second a , following in the left hand on the second beat: if we had a single melodic line analogous to bar 73, we would normally hear a note repetition. Actually, Chopin wrote, in this and in the other comparable bars, not the tenth e^1 but the ninth db^1 .

Small Deviations in the Bass Line

The bass line is no longer an exact downwards transposition throughout: some of the bass notes are transposed down, some up²⁷; a few are even replaced by a different note of the underlying harmony. Example 14 shows a compilation of the versions of respectively the initial and the first repeated structure (stems upwards), and of the second repeated structure (stems downwards), all reduced to the same tonality.

Example 14

Fantaisie op. 49, bar 77–84 (respectively 164–171)²⁸ and 244–251, bass lines transposed and combined

Independent Shifting of Inner Voices

For the inner voices, Chopin has also created differences which can be seen in Example 15.

²⁷ The decision as to whether the upper or lower solution is preferred seems, at least in one case, to be made not until the final writing down of the autograph: in bar 245, Chopin first wrote an eb^1 (followed by an ab in bar 246) on the last beat, the regular transposition a fourth upwards; then he corrected the eb^1 to an eb (using the bass clef for this single note). Subsequent similar shiftings of the bass line can be found in bar 299, second beat, to bar 300, first beat.

²⁸ There is a small deviation: in bar 165 on the fourth beat, the bass note is an octave lower than in bar 78 (see also the following footnote).

Example 15

Fantaisie op. 49, bar 77–84 (respectively 164–171)²⁹ and 244–251 inner voices transposed

The image shows a musical score for Example 15, consisting of two staves of music. The top staff is labeled with bar numbers 77 and 81, and the bottom staff with 244 and 248. Vertical dotted lines connect corresponding notes between the two staves, illustrating the transposition. A dashed line labeled '8vb' is at the bottom of the second staff.

This special solution for the transposed repetition is in consideration of aspects of the sound: if Chopin had written a version transposing the part of the right and the left hand in the same direction, the sound as whole would have been too “high” and “thin”; a version with transposition in opposite directions would dissociate the left and the right in the middle. The definitive solution, avoiding these problems, is the placement of, for example, the f^1 – the third – in bar 244 (the beginning of the new section), together with bass note Db , no longer presenting a hollow sounding fifth³⁰, et cetera.

As to the “ideal” sound, we can assume that Chopin preferred a chord consisting of a key note in the great octave with additional notes which represent the overtone numbers 1 to 5. We can find those “beautiful” sounds for example at the beginning (and – an octave lower – at the end) of Chopin’s C major Study, op. 10 no. 1 (respectively C - c - g - c^1 - e^1 and ${}_1C$ - C - G - [c] - e - g), or at the beginning of the Ab major Study, op. 25 no. 1 (${}_1Ab$ - [Ab] - eb - ab - c^1). Some of the first overtones can be omitted; octave doublings of notes in the higher register do not damage the brightness of the sound³¹, (sometimes even the overtone number 7 is realized within the pedal, as for example, in the last bar of the Study op. 25 no. 5, or the beginning of opus 61).

²⁹ Further differences are detectable: bar 165/166 reads c-d-e-d / d-e-f (not transposed: *gb-ab-bb-ab / ab-bb-cb*) and in bar 168, we find e-f-g instead of e-g in minims (not transposed: *bb-cb-db* versus *c-eb* in bar 81). The alterations in bar 165/166 should be seen in connection with those mentioned in the footnote above.

³⁰ Chopin accepts here the doubling of the third!

³¹ In opus 49, when Chopin links the highest notes of the passage in bar 88/89 (and all its transposed repetitions) with the bass notes following, he is also using this “sound ideal”.

Example 16

Distribution of partial tones and Fantaisie op. 49, beginning of bar 77 and 244, excerpt, transposed

The image shows a musical score excerpt for Example 16, consisting of two systems of music. Each system has a treble clef on top and a bass clef on the bottom. The first system is labeled with a box containing the number '77' above the first measure. The second system is labeled with a box containing the number '244' above the first measure. The notation shows various chords and melodic lines in both hands, with some notes marked with accidentals (sharps and naturals). The bass line in the second system shows a significant change in register, with notes placed lower on the staff than in the first system.

Ambitus and Small Alterations of the Harmonies

Further small variants of musical structure in the second transposed, repeated section of the type described so far can be observed for the rest of this section of our piece. Only one pair of bars should still be pointed out: in bar 112 and 116, on the first beat, we find an Eb major chord in root position, while in the corresponding bars – 279 and 283 (which are transposed a fourth upwards) – there is a six-four chord. Writing a six-four chord already in the initial part would have exceeded the range of the keyboards for which Chopin wrote. The new edition of this work by Jan Ekier corrects this deficiency by suggesting the playing of a retroactive analogy. Aside from this harmonic alteration, Chopin avoids here a change of the harmonic function in writing down the transposed repetition. But this does not mean that all chords are transposed exactly, with their specific distributions of the notes, to the different registers. An example of those small alterations is the harmony of the second half of bar 121, up to the end of bar 123, compared to bar 288 to 290. In the initial section, there we find a dominant seventh chord of A minor (e-g#-b-d) which is transposed a fourth upwards to a-c#-e-g. While in both cases, for the reverberating chords in both hands, we find the frame of an octave, the octave e - e¹ in bar 122, which should become an octave a - a¹ in bar 289, remains at e - e¹ and produces for the left hand a kind of chord inversion³². Additionally, there is a filling-out of the chord in the left hand from a four-note to a five-note chord. The transposition of bar 122/123 by exactly a fourth upwards seems to result in a sound which is too light, while on the other hand a remodelling of bar 122/123 by a retransposition of bar 288/289 could be heard as too “thick”³³.

³² From the middle of bar 288 up to the beginning of bar 300, Chopin prescribes the use of pedal. Therefore, we hear no change of a seventh chord to a four-three chord in bar 289.

³³ Nevertheless, the chord in the second half of bar 121 is of this “thick” type. Probably, this dense version of the chord in the left hand is necessary to realize the chromatic modulation here, which is based on the continuation of the bass note b while altering the g - g¹ - g² into g# - g#¹ - g#². One should notice that, apart from the first beat of bar 289 with its ₁A - A, the lowest note there is an e, from bar 286 until the first half of bar 291.

Now we will consider an example in which Chopin has changed the chord progression while writing a transposed repetition. We find it in the first movement of his piano Concerto op. 11, where the “second” theme starts. Example 17 combines a transposition of the initial section of the exposition from E minor/major to the G minor/major of the recapitulation with the original version of the recapitulation. We observe that the highest point of the broken chord – an e^4 – would become a note out of range – a g^4 . Chopin’s solution here is to replace the seventh chord of the second degree, found in bar 219/220, by a seventh chord of the seventh degree in bar 570/571. In consequence, the upper notes of the right hand in the following dominant seventh chords are different – a kind of exchange of the leading notes occurs: in bar 221, it is the third $f\#^2$ followed by the seventh a^1 ; in bar 572, the seventh c^2 has the third $f\#^1$ as its follower. The fact that, in the “higher version”, the final note with the fermata is lower may be an explanation for the different ornaments which connect the end of the passages to the beginning of the melody of the second theme – including the octave leap from bar 572 to 573.

Example 17

Concerto op. 11, 1st movement, bar 218–225, transposed, and bar 569–576

The image displays two musical staves, labeled I and II, representing different versions of a piano passage from Chopin's Concerto op. 11. Both staves are in 3/4 time and have a key signature of one sharp (F#).
 Staff I (top) shows the original passage from bars 218–225. It begins with a *cresc.* marking and transitions to *con forza* in bar 219. The right hand features a melodic line with a fermata on the final note of bar 225. The left hand provides harmonic support. An *8va* marking is present above the melodic line in bar 219. A *Reo.* marking is below the bass line in bar 219. A *** marking is below the bass line in bar 221. The passage concludes with an *appassionato* marking above the melodic line in bar 224.
 Staff II (bottom) shows a transposed version of the passage from bars 569–576. It begins with a *ff* marking and transitions to *fz* in bar 570. The right hand features a melodic line with a fermata on the final note of bar 575. The left hand provides harmonic support. An *8va* marking is present above the melodic line in bar 570. *Reo.* markings are below the bass line in bars 569 and 570. *** markings are below the bass line in bars 570 and 575.

The image shows two staves of musical notation, labeled I and II. Staff I begins at measure 221 with a piano (p) dynamic, marked 'dolce' and 'con espress.'. It features a melody in the right hand and a bass line in the left hand. Staff II begins at measure 572, marked 'rall.' and 'a tempo', with a 'dolce con espress.' dynamic. It also features a melody in the right hand and a bass line in the left hand. Both parts include 'legato' markings and 'Ped.' (pedal) markings with asterisks.

Free Dispositions of the Inner Voices and Register Changes within a Theme

As already described by John Rink³⁴, the differences in the accompaniment of the melody in the first parts of this second theme are interesting. Compared to the example of the Fantasy op. 49, bar 244, there is not only a shifting of the middle voices by the interval of third downwards, from the fifth to the third (as to be seen in Example 15), here in the concerto, they are to be found a whole octave lower. This has an important consequence: the distance between the lowest note in the first bar of the theme and the “correctly” transposed bass note is no longer two octaves and a third. Chopin can therefore omit the octave leap and shift the highest note backwards by the value of a quaver. Now that the parallel motion is no longer in the distance of a third or a sixth, but of a tenth and an octave plus a sixth between the tenor notes, the melody is emphasized rhythmically and in sonority. (One should notice that, 24 bars later, in the recapitulation of this section after the contrast section³⁵, the piano writing is an exact transposition of the corresponding part beginning with bar 246.)

³⁴ J. Rink, *Chopin: The Piano Concertos*, Cambridge, New York, Melbourne 1997 (= Cambridge Music Handbooks), p. 27.

³⁵ The contrast section is also transposed a third upwards. In one single point, Chopin varies the bass note: the B of bar 242 should become a d, but the composer had it replaced by a D in bar 593 and omitted the tone repetition of the fourth quaver in order to add an octave leap between the first and second quaver.

The last example to be discussed is Chopin's second theme of the first movement of his Sonata in B minor. There we have deviations comparable to those of the theme of the concerto. Here and there, we have transpositions of sections in the major mode, of the interval of a minor third³⁶.

Example 18

Sonata op. 35, 1st movement, bar 41–56 and bar 169–183, both transposed

The image displays four systems of musical notation for Chopin's Sonata in B minor, Op. 35, 1st movement. The first two systems, labeled I and II, represent bars 41–56 and bars 169–183, respectively, both of which are transposed. Each system consists of a grand staff with a treble clef and a bass clef. System I begins with a piano (*p*) dynamic and includes a first ending bracket. System II also includes a first ending bracket. The third and fourth systems show further musical development, with the third system featuring several asterisks (*) and the fourth system featuring several first ending brackets. Pedal markings (*ped.*) are present throughout the score.

³⁶ Chopin's third Sonata for piano solo, op. 58, has no comparable transformation for the second theme and the epilogue group. Apart from small melodic variants (for example in bar 149, 162 – a reduction – or 173/174), there is a "literal" transposition by the interval of a minor third downwards, from D major to B major.

The beginning in bar 41 is a tonic chord with the ambitus of two octaves and a fifth, whereas its equivalent in bar 169 includes three octaves and a fifth. The reason for the enlargement is obvious: in the recapitulation, the second theme – since Chopin omitted the whole section of the first theme – follows immediately upon the development section, which uses in its main parts nearly the whole width of the keyboard. A simple transposition of the initial version would produce a structure which would be too small, by contrast³⁷. But the version Chopin really used is not only a transposition of the part of the right hand upwards by the complementary interval of the third – that is, by a sixth – and the left hand down by a third: he additionally wrote small notes before the chord in the left and right hand and in this way, obtained, together with the pedal, a chordal structure of great brightness. The small notes include the interval of an octave and a tenth. In the right hand, there is the interval of a tenth³⁸. Repeating the first four bar unit, the part of the right hand is still a transposition upwards while the bass line in the left is now higher: it is a transposition by a sixth upwards. In this second four bar unit, Chopin implements new musical ideas: the melodic link of the bass line now starts one bar earlier and is repeated an octave lower in the following bar and leads to the bass note of bar 177, which is no longer a minim, but a crotchet followed by a crotchet rest. Obviously, this bass line should be heard as ending, because Chopin gives no pedal marks for this bar. A further idea is the replacement of the diatonic line in minims in the right-hand in bar 46 by a chromatic line in crotchets in bar 174, which anticipates the bass line.

It is not necessary to list up all other small differences, but for the following two four-bar units, we should notice the octave doubling of the melody in the right hand and the widespread left-hand chord in bar 179 which has special pedal marks and a wavy line for the arpeggio³⁹. Also, the phrasing slurs are different. In the last four-bar unit of the theme – the second half of bar 181 to 184 – Chopin goes back to a transposition of the bass line by the interval of a third downwards. And since, in the exposition, the varied repetition of the second theme melody in the right hand, bar 57 f., is transposed an octave upwards – a transposition which is not taken over to the recapitulation – we only have for the

³⁷ Cf. J. M. Chomiński, *Sonaty Chopina*, Kraków 1960, p. 138.

³⁸ Some editions have no arpeggio signs throughout, for this tenth in the recapitulation (only the chord at the beginning of the varied repetition in bar 193 has one), whereas in the exposition, we find wavy lines. It could be argued therefore, that this tenth with its frame of two white keys should be played without an arpeggio, but in the first section of the exposition, we have a combination of specific white and black keys, which in this respect is not more problematic. Cf. H. Kinzler, *Chopins B-Moll-Sonate: Vier seiner tollsten Kinder – genetisch verwandt? Spekulative Überlegungen zum inneren Zusammenhang des Werkes sowie weitere analytische Beobachtungen*, “Ad Parnassum” 2004 no. 4, p. 78/79, footnote 12.

³⁹ A similar enlargement is the first chord of bar 181: it must be played as an arpeggio although there is no wavy line in the first German edition.

corresponding section, a transposition of the whole structure downwards by the interval of a minor third⁴⁰.

The varied repetition of the second theme is in both cases constructed with enormous differences (bar 57 to 81 respectively bar 193 to 209). Firstly, the section of bar 49 to 56 – a melody leading upwards for 4 bars, followed by a line downward of the same length – is enlarged by a sequence (bar 69/70 to 71/72) in the ascending part and the line down (beginning in bar 71) is extended by a twice-varied repetition of bar 75/76, to build up bar 77/78 and 79/80 (Both enlargements sum up to a section which forms a 16 bar unit!). Secondly, the melody leading downwards is nearly a complete new composed section, building up the corresponding part in the recapitulation. Beginning with the part marked as “stretto”, the rhythmic, melodic and harmonic conception is new⁴¹. In bar 203/204, we have syncopated minims and in 205 to 208 there is no kind of varied repetition, but a melodic line runs in crotchets throughout, up to bar 207. Even the harmony and the piano writing changes, beginning with bar 205 – no longer are broken chords spread over half a bar, but there are chord progressions with every crotchet. The bass line is characterized by intervals of minor seconds. (This use of minor seconds in the bass has a progression in the following section: where in the exposition, we have ascending fourths as main intervals (*eb - ab* and *ab - db*), in the recapitulation we also find minor seconds (*e - f*): the same second which is so prominent in bar 208 (*e/E - f/F*, together with an *eb*¹ in the right hand).

This last varied section exceeds the limits of the subject discussed here, since these alterations do not primarily concern transposition – they have to do with general principles of variation when using formal models. A look at the continuations of the second theme in our example from the E minor concerto will confirm this opinion: the melody in the right hand, beginning with bar kinds of circle-of-fifth sequences in the harmonic construction, or the continuation of the piano writing in the left hand, for whole sections).

⁴⁰ Striking alterations are seen in the bass notes on the first beat in bar 189 and 191. The first is a shifting down by an octave – the bass note in bar 189 should be a *bb*, not a *Bb* –, to be seen in correspondence respectively to bar 185 and to 45 as a repetition of bar 41. (Bar 61 is a varied repetition of bar 57, but here and in bar 169, compared with bar 173, there is an octave difference between the bass notes.)

The second alteration includes a chord inversion: “normally”, we should have the bass note *c* as a minor third lower than the *eb* in bar 59. (To read a *c* in this bar, which together with the *c*² in the right hand, would be a doubling of a leading note, is a missreading). The *eb* in bar 59 means that the chord is a three-four chord (with a suspension in the melody); the *F* in bar 191 (instead of a *c* or *C*) produces a seventh chord in root position. Further deviations are of minor interest: the missing wavy line in bar 185, the lack of the grace note in bar 189, the rhythmic variant in bar 190 and the tying over of some notes in the middle of the part of the right hand.

⁴¹ Cf. H. Leichtentritt, *Analyse der Chopin'schen Klavierwerke*, vol. 2, Berlin 1922 (= Max Hesses Handbücher; 58), p. 218, and Chomiński, *op. cit.* p 138–139.

In conclusion, I refer to one last example of differences, but one which is inexplicable to the author: in the first movement of the B minor sonata, we find in the left hand of bar 92, the interval of a diminished fourth f - b, whereas in the comparable bar 220, it is a major sixth B - g# (instead of d - g#). Should it be made uniform and if so – which version would be the right one?