# Haptic Analysis: An Alternative to Score-based Analyses of Chopin's Piano Sonatas Op. 35 and Op. 58


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Abstract

Using Chopin's piano sonatas as case-studies, this dissertation takes Chopin's letters and his unfinished *Projet de Méthode* as a starting point to propose an alternative perspective to score-based analysis: haptic analysis. The word haptic comes originally from the Greek word *haptesthai* which literally means to touch. Primary sources - including Chopin's own letters, along with accounts by George Sand and Chopin's pupils and friends - point to his reliance on the piano as the initial impetus to his compositional process. Because of this close relationship Chopin shares with the piano during his compositional process, analyses of his compositions need to take into account some sort of physicality to render a fuller insight into his compositional process.

Nevertheless, Chopin's notated scores have typically been regarded as the encoding of an intellectual construction amenable only in part to well-developed analytical tools suitable for approaching the music of, say, Beethoven, with its performative aspects considered as an entirely separate entity. Drawing on previous studies by David Code and Eugene Montague, my haptic analysis of Chopin's sonatas prioritizes the physical 'feel' of these compositions. It uncovers traces of compositional process by looking specifically at how the figurations that he develops are built incrementally and are driven by ergonomics of the hands before being shaped into something that has a thematic, harmonic and textural logic of its own. With my tools as a pianist, I reverse engineer some of Chopin's thematic and transition materials to construct an alternative model of analysis that outlines the extent to which a physical process can lead to compositional decisions. As a practice-based research, this study will use filmed examples to further illustrate some of the haptic procedures at work.

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Camerawoman: NingHui See

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List of Recordings

CD 2 unedited: Performed by Xiaoyun Lim
Recording Equipment: Sony PCM 1000 (Audio) and Sony AX 33 (Video)
Recording of Chopin Op. 35 (27th June 2019) Trinity Laban Conservatoire of Music and Dance Stuart and Mackerras Room Steinway B 512153
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Chapter 1: Introduction

Of all the works from Fryderyk Chopin's oeuvre, it is his sonatas that have, historically, provoked the fiercest disputes amongst critics. The beginning of the debate can be traced at least as far back as to Robert Schumann, who described the four movements of the Sonata Op. 35 as 'maddest children under one roof'.[1] His contemporaries, Liszt and Mendelssohn also held similar negative opinions of Op. 35. The former questioned his ability to handle large-scale form and the latter 'hated the finale' of the work.[2] The view that Chopin's sonatas lacked tight structure continued to propagate, and consequently, from at least the 1920s, advocates of Chopin's sonatas have used analytical methods and Beethoven as a model of reference to counter accusations of a lack of structural unity and motivic connection.[3]

The first wave of analysts, typified by AB Marx, used the sonatas of Beethoven as points of reference. Starting with Hugo Leichtentritt's pioneering efforts in *Analyse der Chopin'schen Klavierwerke,* subsequent generations of scholars further espoused Chopin's compositional mastery in the sonata genre as worthy of the Beethovenian heritage. [4] Later analysts, such as Charles Rosen

[1] Robert Schumann*, Neue Zeitschrift für Musik* Volume 8, February 1841, 39. The word 'tollsten' received various translations among English writers and critics. To standardise, I will use 'maddest' throughout the dissertation and discuss this issue explicitly in Chapter 3.

[2] 'Mendelssohn, too, hated this finale of Chopin's'. See Charles Rosen, *The Romantic Generation* (Cambridge: Harvard University Press, 1995), 284 for Chopin's contemporaries' criticism of his Op. 35. I also discuss criticisms of his sonatas in greater details in Chapter 3.

[3] Negative criticisms on Op. 35 and Op. 58 include those by Frederick Niecks, James Huneker, James Hadden, Henry Bidou, Gerald Abraham, Peter Gould, Herber Weinstock and Donald N. Ferguson. See Frederick Niecks, *Frederick Chopin as a Man and Musician Volume 2* (London: Novello, 1890), 229. James Huneker, *Chopin: The Man and His Music* (New York: Dover Publications, 1966), 167. James Hadden, *The Master Musician: Chopin* (London: J. M. Dent and Sons, 1903), 186. Henry Bidou, *Chopin*, translated by Catherine Alison Phillips (New York: Tudor Publishing, 1936), 189. Gerald Abraham, *Chopin's Musical* Style (London: Oxford University Press, 1939), 107. Peter Gould, 'Concertos and Sonatas', in *Frederic Chopin: Profiles of the Man and Musician*, edited by Alan Walker (London: Barrie Rockliff, 1966), 161. Herbert Weinstock, Chopin. *The Man and His Music* (New York: Knopf, 1949), 275. Donald N. Ferguson, *Piano Music of Six Great Composers* (Freeport: Books for Libraries Press, 1970), 243.

[4] Leichtentritt commented that Chopin's Op. 35 revealed 'a penetrating study of late Beethoven.' Hugo Leichtentritt*, Analyse der Chopin'schen Klavierwerke*, Vol 2 (Berlin:Max Hesse, 1921-1922), 210. Leikin observes that the structure of Op. 35 takes after Beethoven's Op. 26, because, despite differences in tempo in their movements, 'the difference in form is not so substantial after all.' Anatole Leikin, 'The Sonatas' in *The Cambridge Companion to Chopin* edited by Jim Samson (Cambridge: Cambridge University Press, 1992), 160-175. Schumann similarly overestimated Beethoven's presence as an influence on Chopin's works as Schumann noted 'as Hummel followed the call of Mozart, so Chopin led the spirit of Beethoven into the concert hall.' Robert Schumann, *On Music and Musicians* (New York: Pantheon 1946), 131. Other similarities include Beethoven's moonlight sonata and Chopin's Fantasie-Impromptu. Oster in his article contends that 'the Fantasie-Impromtu had been inspired and strongly by another renowned composition: Beethoven's […] so called Moonlight Sonata'. Oster Ernst, 'The Fantasie-Impromptu: A Tribute to Beethoven' *Musicology* 1 No. 4 (1947), 409. Also, Rudolph Réti, *The Thematic Process in Music* (New York, 1951) 298-310, Alan Walker, 'Chopin and Musical Structure' in *Frederich Chopin: Profiles of the Man and the Musician* edited by Alan Walker (London, 1966) 239-249. Janice Aronld, 'The Role of Chromaticism in Chopin's Sonata Form: A Schenkerian View' PhD diss., 1992. Wayne Petty, 'Chopin and the Ghost of Beethoven' *19th Century Music* 22 No. 3 (1999), 283.

for instance, have more fruitfully pointed to Johann Nepomuk Hummel as a more appropriate model for Chopin, but by this point in time, certain views connected to Chopin's use of sonata form had become firmly entrenched.[5]

The focus on Beethoven as set up by the initial wave of analysts can be doubly problematic. Firstly, it overlooks other important aspects of Chopin's sonatas situated within the broader context of nineteenth-century pianism and aesthetic climate: virtuosity and improvisation. Secondly, analysts who have used Beethoven as a model of comparison are arguably not engaging in hermeneutic analysis but a presentist's project, because of their vested interests and the value judgements that come with them.[6] Because Chopin's biographers, and various scholars from the 1920s until the present have tried to rescue the reputation of his sonatas through score-based analysis, thus drawing conclusions that do not fully encapsulate his role as a pianist, I will be proposing another way of thinking about Chopin's handling of the sonata: his haptic process and how this can be framed as another mode of analysis.

Approaching Chopin's handling of sonata forms through his haptics was a result of a discovery and recovery process due to a wrist injury I incurred while preparing Tchaikovsky Piano Concerto No. 1, Op. 23 for an exam in 2014. The wrist injury, although not career threatening, prevented me from performing virtuosic works requiring a tremendous stretch of the hand and power from the wrist. In this case, it therefore meant that I had to rethink my repertoire choices for both my recital and concerto exams. A discussion with my piano professor brought me back to Chopin, a composer that I had never felt particularly close to. Nevertheless, my numerous years of training as a student in the conservatoire setting had allowed me to build up a repertoire that included some of Chopin's piano works. Relearning some of these works with an injured wrist allowed me to realise and appreciate that he was a composer who wrote not just idiomatically for the piano, but also ergonomically for the hands, an element that I, as a pianist, would have taken for granted if not for the injury. Consequently, it prompted me to delve further into the possibility that the comfort that I felt while playing his works might have been a component part of his compositional language, alongside harmony and structure.

[5] Rosen has for instance pointed out structural similarities between Hummel's and Chopin's sonatas. 'The influence of Hummel waned early in his music, although he never ceased to admire him, and in the 1840s Hummel's Sonata for Piano in F sharp Minor is still the easily recognizable model for Chopin's Third Sonata in B minor'. Rosen, *The Romantic Generation,* 285.

[6] Samson made a similar commentary as he contended that 'Chopin's associations with the salon have proved a considerable obstacle to his public success in Germany […] it was above all the Breiktopf edition which changed that, conferring dignity on Chopin in the German world'. See Samson and Rink, 'Chopin Reception: Theory, History, Analysis' in *Chopin Studies 2* edited by Jim Samson and John Rink (Cambridge: Cambridge University Press, 1994), 2, 6.

Without considering how a piece of composition might be played or executed, traditional modes of analysis have always dealt with both micro and macro aspects of a composition. Such modes of analysis observe motivic, harmonic, rhythmic and structural elements of a work and how these elements can point to the work's organicism or reduced to form an overall tonal plan. My mode of analysis, haptic analysis, aims to include the playing or executive aspects of a work so as to understand the relationship between a work's compositional elements and procedures of physicality that are required for a work to be realised in real time.

Overview of Chapters

The first chapter of this dissertation includes a literature review on broader topics relating to performance analysis, status of score and the role of a performer and an analyst. It starts by outlining the state of research on performance analysis. It further discusses the challenges this branch of musicology continually faces due to the perceived superiority of the text and by extension the analyst as authority, to whom the performer is considered as inferior. Extending the framework from previous performers' attempts to develop an alternative to score-based analysis, I focus on how Chopin's pianistic writing can be a potential for action and an alternative way to explore musical space.

The next chapter sets up the methodology of the mode of analysis, haptic analysis, that I then pursue in depth in chapter 6. This second chapter explains some of its advantages over score-based analysis, as well as its limitations. Haptic analysis traces a compositional process, haptic exploration, in Chopin's sonatas by looking specifically at how the figurations that he develops are built incrementally and are driven by the physical comfort of the hands before being shaped into something that has a thematic, harmonic and textural logic of its own. Haptic exploration is a term that I have coined to denote a compositional process that relies on a keen sense of physical contact with the instrument. The word 'haptic' comes originally from the Greek word *haptesthai* which literally means 'to touch'. Because of the close relationship Chopin shares with the piano (as seen from his letters), analyses of his compositions need to take into account the aspect of physicality to render a fuller insight into his compositional process. This chapter will also use some of Chopin's other compositions, including selected passages from his etudes, concertos and ballades to illustrate some of his haptic impulses. In my discussion, I aim to reveal that across Chopin's career, his haptic impulses move from transition passages to those that take on thematic functions, especially in his large-scale works.

The middle chapters take a few steps back to explain the need for this mode of analysis. Chapter 3 provides a concise summary of the reception and analytical writings concerning Chopin's second and third sonatas, including those of Hugo Leichtentritt, Rudolph Réti, Alan Walker and

Anatole Leikin. [7] A critique of their work will be carried out to demonstrate that their obsession with thematicism has been problematic because it has overlooked Chopin's originality in the genre. Historically, the reception of these two sonatas has been very different, since Op. 58 has yet to generate debates anywhere near as extensive as those surrounding Op. 35. While it is fruitful to consider the two pieces together, the focus will be placed on Op. 35. This chapter also re-evaluates Schumann's writings on Chopin's Op. 35. It contends that Schumann, despite being conservative, fundamentally approved of this work. His commentary that 'Chopin has simply bound together four of his maddest children' was by no means a criticism, in that the German word 'tollsten' that Schumann originally used in his review did not have wholly negative connotations.[8] English language publications that examine the relationship between Schumann and Chopin tend to select one translation of the German 'tollsten', presumably for consistency. However, this sidesteps the important detail that 'tollsten' has had a number of different English translations, encompassing a range that sheds light on the various different understandings that have existed in connection to this piece.

The next two chapters survey the aesthetic climate of the 1830s. Chapter 4 deals with the issue of genre. In particular, this chapter approaches genre through small forms and demonstrates various reasons why Chopin chose to integrate these genres into various movements in his sonatas. Rethinking improvisation in terms of a *physically-driven* process opens up a new discussion on the haptic nature of his compositions, demonstrating how his haptic process formed an indispensable component of his musical language.

The following chapter discusses pianistic trends, improvisation and virtuosity in 1830s Paris, specifically in relation to Chopin. While the practice of improvisation has been a prominent facet of performance culture since the seventeenth century or even earlier, with Beethoven himself known as an outstanding improviser, by the 1830s its legitimacy became gradually undermined by the emerging aesthetics of the work-concept. The increasing prominence of the sonata principle, defined by German tradition and by Beethovenian standards of intellectual rigour, encouraged further movement away from improvisatory approaches. In addition, this chapter will also devote a section to Chopin's own time; it uses his letters and the diary entries of his close friends, such as Delacroix and George Sand,

[7] See Hugo Leichtentritt, *Analyse der Chopin'schen Klavierwerke* Volume II (Berlin: Max Hesse, 1921-1922), 211-230. Rudolph Réti, *The Thematic Process in Music* (New York, 1951) 298-310. Alan Walker, 'Chopin and Musical Structure' in *Frederic Chopin: Profiles of the Man and the Musician* edited by Alan Walker (London, 1966), 239-249. Anatole Leikin, 'The Sonatas' in *The Cambridge Companion to Chopin* edited by Jim Samson (Cambridge: Cambridge University Press, 1992), 160-175. Janice Arnold, 'The Role of Chromaticism in Chopin's Sonata Form: A Schenkerian View' PhD dissertation, Northwestern University, 1992.

[8] Schumann*, NZfM* February 1841, 39

to demonstrate his attitude towards his own compositions and the relationship between the process of improvising and composing. It describes and differentiates the various approaches to improvisation extant in Paris during the period, from highly virtuosic to those of Chopin with haptic exploration at their core. It also discusses some of the teaching manuals and treatises on improvisation and considers how improvisation was taught.[9] Chapters 4 and 5 both highlight problematic areas surrounding the reception of Chopin's music, which have largely been forgotten in relation to his piano sonatas.

Using the methodology set up in the second chapter, the sixth chapter uses Chopin's sonatas as case-studies to demonstrate the feasibility of haptic analysis. However, it goes beyond the scope of this dissertation to perform haptic analysis on both sonatas in their entirety. Op. 58 will therefore be pursued alongside Op. 35 only in a spirit of comparative analysis in order to deepen the understanding of Op. 35 and to illustrate how Chopin, at a more mature stage of his compositional career, could develop his haptic ideas more seamlessly within a more conventional mould of harmony and structure. Selected passages of Op. 35 and Op. 58 will be chosen and discussed at length to demonstrate that even in Chopin's working of a strict form (the sonata) it is this physicality that generates an improvisatory impulse; this impulse then unites with harmony, voice-leading procedures and structure to create a sense of textural logic and thematic unity. Consequently, thematic unity in Chopin's sonatas resides in a physical form of unity as well as the thematic and structural unity that analysts have often advocated. The process of haptic exploration led Chopin to develop some creative responses to issues of form, structure and genre. By extending score-based analysis to performance, the concluding chapter of this dissertation postulates a future direction of haptic analysis and further encourages the consideration of physicality in the works of nineteenth century pianist-composers as a component part of analysis.

[9] I differentiate between the terms improvisation and haptic exploration here and elsewhere in part due to nature of my study and in part due to the negative connotations that are traditionally related to improvisation, being associated with performing traditions and consequently branded as a party-trick used frequently among virtuosos. Introducing another term which is derived from improvisation allows the negative connotations to be set aside and look at a compositional process that is spontaneous and inspired by the role of hand movements.

Literature Review on Performance Analysis

In 1999, a chapter by Nicholas Cook on 'analysing performance' opens with a critique of Wallace Berry's book *Musical Structure and Performance*.[10] Berry's book was a pioneering attempt to construct a methodology for performance analysis. From Berry's discussion, Cook observes that it was always a case of 'the path from analysis to performance,' while 'the path from analysis to interpretive decisions' was in turn dependent on 'the findings of analysis and consequent outlets in performance'.[11] Cook then concludes his opening paragraph with the opinion that 'performers, it seems, have a great deal to learn from analysis; the possibility of a reciprocal process of learning is apparently not considered'.[12]

It was not just Cook who arrived at this conclusion. Others, including practicing musicians Jonathan Dunsby and John Rink (both pianists) and violinist Joel Lester have expressed similar sentiments in their critique of Berry's monograph.[13] Lester demonstrates how he thinks a 'reciprocal discourse' can be fulfilled. By comparing the recordings of Horowitz and Rubinstein against the analytical writings of Schenker and Schachter, he asserts that 'performers could enter analytical dialogue as *performers* - as artistic/intellectual equals, not as intellectual inferiors who needed to learn from theorists'.[14]

Berry's not so successful approach is mirrored in an earlier work by Jane Schmalfedt in 1985. Throughout the hypothetical dialogue she creates, switching herself back and forth between the roles of an analyst and a performer, she gives far more authority to the analyst. She exerts that: 'if I succeed in finding confidence for the performance of the second bagatelle, it will be because I have tried more than ever to find an analytical basis for performance decisions'.[15] This precisely echoes the sentiments that Cook made in his critique: performance decisions are always dependent on 'the findings of analysis'. In 2008, Mine Doğantan-Dack's article 'Recording the Performer's Voice' goes a step further to explain the reason why research on performance and analysis tends to be futile. In her words:

[10] Nicholas Cook 'Analysing Performance and Performing Analysis' in *Rethinking Music* edited by Nicholas Cook and Mark Everist (Oxford: Oxford University Press, 1999), 239-61. Wallace Berry, *Musical Structure and Performance* (Yale University Press, 1989).
[11] Cook, 'Analysing Performance and Performing Analysis', 239-240.
[12] Ibid, 240.
[13] Jonathan Dunsby, 'Guest Editorial: Performance and Analysis of Music' *Music Analysis* 8 (1989), 1-2; 5-20. John Rink, 'Review of Berry' *Music Analysis* 9 (1989), 319-39. Joel Lester, 'Interactions between Analyses and Performances' in *The Practice of Performance: Studies in Musical Interpretation* edited by John Rink (Cambridge: Cambridge University Press, 1995), 197-216.
[14] Lester, 'Analyses and Performances', 214.
[15] Ibid, 19.

> The great majority of research in this area is built on the assumption that musical performance does not involve and reveal knowledge in the same way as music analysis, and that a performance is epistemologically creditworthy only when its sonic characteristics are justified by a rational, analytical, discursive knowledge basis, inevitably provided by the analyst.[16]

A decade has past but Doğantan-Dack's explanation remains accurate even as we look at recent publications on performance analysis.[17] While musical performance can contain knowledge, it is not of the same kind, or more specifically, deemed to be as intellectual, as that which an analyst can gather from the score by pointing us towards ideas on harmony and structure. Inevitably, the implicit assumption is that without the analyst, the performance is not 'creditworthy'.

Literature on performance analysis has, since Berry's and Schmalfedt's attempts, caught the attention of many other scholars and performers, expanded in different directions and grown significantly in output. Recognising the tyranny exerted by a tradition that has privileged the text and promoted score-based analysis against performers and performance, and in order to rectify this problem, some of Cook's earlier works advocated the need to see 'music as performance', and 'changing the musical object'.[18] In his article 'Between Product and Process', he starts to see the musical work not as a definitive text but rather a 'script' which holds a set of instructions 'choreographing a series of real-time, social interactions between players'.[19] The difference between viewing a score as a text and a script is that it allows a 'shift from seeing performance as the reproduction of texts to seeing it as a cultural practice prompted by scripts' which will then 'result[s] in the dissolving of any stable distinction between work and performance'.[20] Cook's approach is vital because it adds a different dimension to the identity and role of the musical work (product) and what it can do, as well as how a performer can actively derive information from the process towards performance. Eventually, because of this interactive rather than submissive process, the power hierarchy is now shifted back to the performer. Viewed in this way, musical works no longer enjoy a more privileged position than performances, which I believe ultimately helps to equalise the power relation, or as Cook puts it 'complementary strands of the twisted braid'.[21]

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[16] Mine Doğantan-Dack, 'Recording the Performer's Voice' in *Recorded music: philosophical and critical reflections* edited by Mine Doğantan-Dack (London: Middlesex University Press, 2008), 300.
[17] See below for discussion of Daniel Leech-Wilkinson's article published in 2016 and Elisabeth Le Guin's monograph for instances.
[18] Nicholas Cook, 'Between Process and Product: Music and/as Performance' *Music Theory Online* 7 (2) 2001, 1-31 and 'Changing the Musical Object: Approaches to Performance Analysis' in *Music Intellectual* 2009.
[19] Cook, 'Between Process and Product', 15.
[20] Ibid, 16.
[21] Ibid, 17.

A series of initiatives came from the Arts and Humanities Research Council (AHRC) in 2004. The Research Centre for the History and Analysis of Recorded Music (CHARM) for instance was set up by a group of scholars, and practicing musicians, Cook and Rink both included, to use recordings as an alternative to score-based analysis. One of its aims, as stated on the website is to 'promote a musicology that better reflects the nature of music as experienced in the twentieth century' and giving a voice to performers who are ultimately responsible for creating this experience. Daniel Leech-Wilkinson's decade-worth of research in early recordings of Schubert's songs and later, in recordings of Alfred Cortot's Chopin performances, has helped to shed light on how different these early recordings can be in comparison to the composer's score.

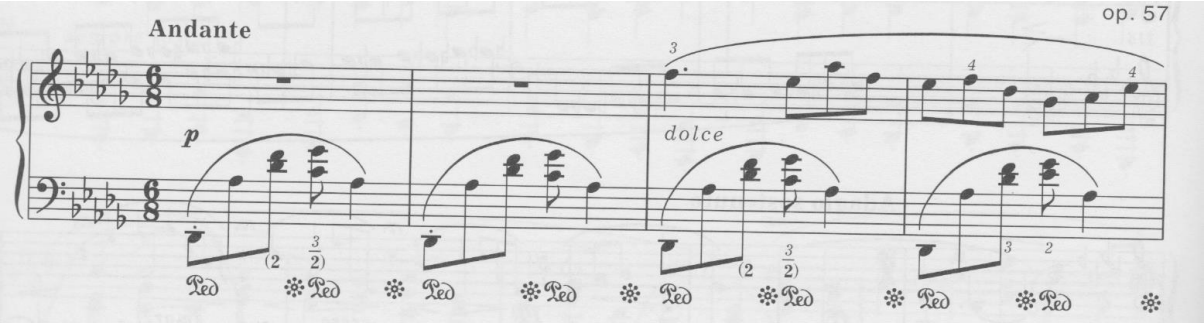
At the heart of Leech-Wilkinson's research, as expressed in his article 'Classical Music as Enforced Utopia', is his concern that by modern day aesthetic standards, ones that call for a faithfulness to composers' intentions, we have limited a great deal of interpretative possibilities, or as he dishearteningly puts it 'none of this is allowable today'.[22] Earlier recordings, for instance from the 1920s, have shown otherwise. His 2015 study of Cortot's recordings of Chopin Op. 57 made in 1920, 1923 and 1926 demonstrated how varied each performance can be from one another and the extent they can also deviate from Chopin's score. With the aid of a Sonic Visualiser, Leech-Wilkinson mapped Cortot's recordings on to a time graph that showed where Cortot placed his *rubato* by lengthening beats or propelled forward by shortening beats.[23] To Leech-Wilkinson's taste, Cortot's recordings, despite all the *tempo rubati* and *accelerandi*, are musically 'persuasive' even where Chopin has not notated such tempo fluctuations in the score.[24] In the same article, his critique of analysis raises two important questions:

> Analysis has developed in tandem with a particular approach to performance, one in which everything of classical music worth playing or studying is reverentially handled, and in which precision and objectivity are owed to the composer and his creation. What is analysis to think of performances that don't share those values, in which notes are skated over, cut out, added, quartered or quadrupled in length? What does it seek to show when pieces are no longer subservient to their texts?[25]

Questions that Leech-Wilkinson raise beg a more immediate question: Is the text conveyed by notation the perfect medium for representing the composer's music and intention? This brings to

[22] Using recordings of Eibenschutz and those of other pupils of Clara Schumann, Leech-Wilkinson argues that 'their performances are radically unlike ours, much less predictable, with rubato used to an extent that to us is incomprehensible as 'musical', rushing ahead with *crescendi*, slowing with *diminuendi*, dislocating the hands, speeding across phrase-ends rather than slowing down. None of this is allowable today'. Daniel Leech-Wilkinson, 'Classical Music as Enforced Utopia' *Arts and Humanities in Higher Education* 15 (3-4) 2016, 327.
[23] Daniel Leech-Wilkinson, 'Cortot's Berceuse' *Music Analysis* 34 (3) 2015, 341.
[24] Ibid, 353.
[25] Ibid.

mind some of the writings of the French philosopher Jacques Derrida, based on his readings of Plato's *Phaedrus*. Legend has it that when the Egyptian god of writing, Theuth, presented King Thamus with the idea of writing as a drug or pharmakon for being 'wiser and stronger in memory', Thamus rejected it on the basis that while it can act as a drug, it can also act as a poison that harms the memory through causing forgetfulness. Much of Derrida's writing is built on the idea of a false binary, that our understanding of a word or a concept is also dependent on its polar opposite.[26] Put into the context of a score, a 'dead' object, notation is possibly the perfect medium for transmitting and representing fixed quantities including notes to play, basic rhythm and dynamics levels. Nevertheless, it does not allow the composer a medium with which to notate performance variables. Our concept of dynamics and dynamic levels in a performance of *forte* for instance, is dependent on the intensity of *piano.* Take rhythm in Example 1.1 (below) for instance: how much longer *exactly* should one hold or even accentuate the second beat or the dotted quavers in Chopin's mazurkas in order to capture qualities of the dance rhythm?




Example 1.1 Chopin Berceuse Op. 57 Bars 1-4[27]

In the case of Chopin's Op. 57, when Chopin replaced the two quavers in the last group of the compound duple with a crotchet in the accompaniment, was that perhaps an indication that he also wanted a slight lingering of the corresponding melody note, as there was no better way of notating it? In other words, because notation, like writing, is not a medium that allows for a complete set of instructions to be transmitted, it can only be experienced through performance as recreating the original concept of the composer.

[26] 'This pharmaceutical nonsubstance cannot be handled with complete security, neither in its being, since it has none, nor in its effects, the sense of which is always capable of changing. In this way, writing, touted by Theuth as a remedy, a beneficial drug, is later overturned and denounced by the King and then, in the King's place by Socrates, as a harmful substance, a philtre of forgetfulness'. 'The magic of writing and writing' that Plato speaks of in his dialogue is to Derrida 'a cosmetic concealing the dead under the appearance of the living'. See Jacques Derrida, *Dissemination* translated by Barbara Johnson (Chicago: University Press, 1981), 129 and 142.

[27] Fryderyk Chopin, *Dzieła Różne* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2002), 84.

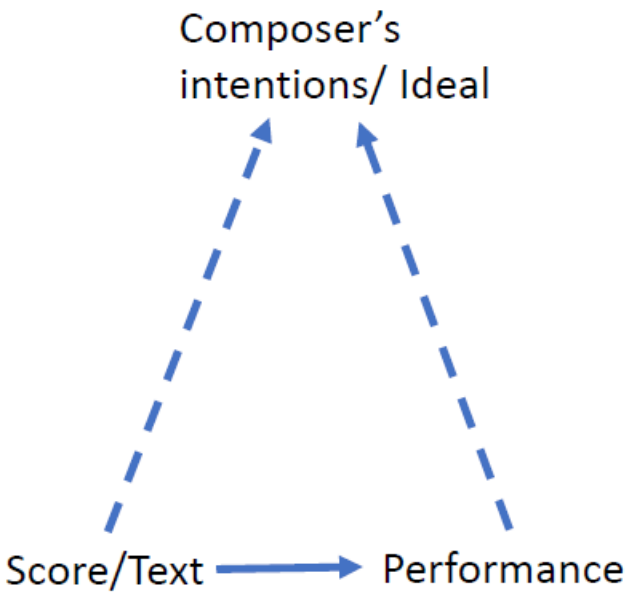



Figure 1.2: Composer's Concept of the Work

The score is perhaps better seen as a starting point for a recreative performance that gives room for numerous possibilities, rather than a definite end point. By conventional wisdom, the hierarchy between the score and performance, between analyst and performer, has, even in theory, been configured wrongly. Perhaps then, when we hear a performance that appears to differ from the notated score, we should think twice before questioning the differences, since the composer's intentions have been revealed to the performer through this imperfect medium.

Focusing on a different aspect of performativity, Cook's monograph *Beyond the Score* put together some of his earlier contentions and introduces possible ways in which a performer's gestures during performance can explain some of the notation on the score and add an extra dimension to what is being heard aurally. In the chapter 'Everything Counts', Cook uses Sokolov's video recording of Chopin Op. 63 No. 3 to contend that Sokolov uses gestures to 'make musical points', both aurally and visually.[28] Cook then goes on to cite instances where Sokolov's gesture - lifting his hands off the keyboard - corresponds to the slurs notated on the score. In this respect, the performance that Sokolov has given goes a step further to also reveal knowledge about the musical work and how articulation, for instance, can be interpreted alongside the performer's gestures.

[28] Nicholas Cook, *Beyond the Score: Music as Performance* (Oxford: Oxford University Press, 2013), 330.

There are two major issues surrounding Cook's monograph. In his opening chapter, he attributes the reason for performance always being left to the sideline to what he calls 'Plato's curse'. He argues that it is 'not that musicologists are not interested in performance' but because of the way the history of music has been 'configured […] the idea that music is sounded writing, that it consists of text or works reproduced in performance'.[29] For Cook, the nature of language has therefore privileged analytical writings on music.

The use of recordings within the research field of performance and music analysis is equally problematic because the performer who has recorded the work is still not granted a voice. Doğantan-Dack's articulates this succinctly - to quote her at length:

> Recorded performances, even if conceived as acoustic texts, exist without their authors and are 'mute' in that they do not make the performer's voice heard: a recorded performance does not make the intelligible design, and musical knowledge behind it apparent to musicologists who by and large rely on tools appropriate for exploring another kind of musical activity to understand what the performer does. Even if musicology has indeed left behind its almost obsessive focus on the score and moved on to a conception of music as a performance art, it nevertheless remains the case that researchers in performance studies are reluctant to represent performers as authorities in the generation of music meaning and knowledge […] all the while using their recorded performances as basic research materials.[30]

Consequently, it is not down to the nature of language or Plato's curse, rather, how and what music historians have chosen to write about when they analyse music. Following some of Doğantan-Dack's suggestions for the problems identified (performer's discourse) I look at how my analysis from a performer's perspective can allow me to enter the field of analysis. Instead of performance analysis, my focus is on performer's analysis. This is not an entirely brand-new branch of the discipline, conceptualising the relationship between what a performer does and analysis. The study of gesture and bodily movements was already being taken into consideration a decade ago by scholars including David Code, David Lidov and Eugene Montague.

Both Code and Montague used the score as a set of gestural instructions to explain the choreography of hand movements as an essential inspiration to the construction of a composition. Code took his cue from a piece of critique by Debussy: 'I will try to glimpse, through musical works, the multiple movements that gave birth to them, as well as all that they contain of the inner life: is that not rather more interesting than the game that consists of taking them apart like curious

[29] Ibid, 4. Later in the chapter, Cook quotes Gary Tomlison to explain that the 'text-performance split' is also rooted in a drive towards cultural superiority. 'For Forkel, a society's position on the spectrum from musical primitiveness to perfection depended on the sophistication of its notation, so that "the history of European musical development could be plotted as a story of the progress of writing." See ibid, 16.
[30] Doğantan-Dack, 'Performer's Voice', 298.

watches?'[31] Code, with the aid of video clips of his own playing of Debussy's *Voiles*, turned his attention to these 'multiple movements' to demonstrate how the piece's pitch patterns unfolded. Code's insights were further supported through his discussions of previous compositions by Debussy: the *Estampes*, *Etudes* and *Préludes*. Building on Code's work, Montague (with his innovative representation of movement through arrows on music examples of Chopin's Op. 25 No. 1) went further to contend that such physicality plays an integral role in unfolding the musical structure and logic of this etude.[32] Taking a scientific approach and in the absence of recorded examples, Montague developed a systematic method of denoting the central gesture of Op. 25 No. 1 on the score which has been a useful tool for me to build on and develop my model of haptic analysis.

There is, therefore, a literature in place to consider the haptic. Despite this, it has only been road-tested for small forms and not for larger structural forms such as the sonata. More importantly, although Montague and Code have used their own skills as pianists to postulate the reasons behind various features of compositions, they did not venture far into drawing the relationship between their own physical sensations and the composer's original physical sensations. Nonetheless, both these studies have provided alternatives to how a score can be used and what other information can be derived from it.

Other attempts have been made to cursorily discuss a composer's physical attributes directly to their output. In Larry Todd's *Nineteenth Century Piano Music* for instance, he argued that in Weber's compositions 'thickly left-hand chords frequently encompass the span of a tenth. Their intended rich resonance was doubtless facilitated by the peculiarities of Weber's own hand structure; yet their impracticability for hands of average size was frequently criticised during Weber's own life'.[33] The same can be said for the violin virtuoso Paganini whose personal physician Dr Bennati wrote in 1831:

> Paganini's hand is not larger than normal; but because all its parts are so stretchable, it can double its reach. For example, without changing the position of the hand, he is able to bend the first joints of the left fingers- which touch the strings- sideways, at a right angle to the natural motion of the joint, and he can do it with effortless ease, assurance,

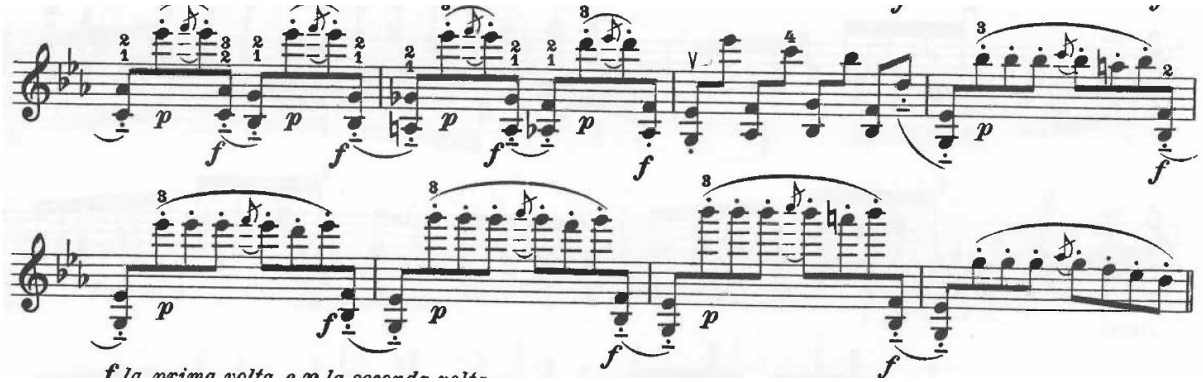
[31] Claude Debussy, *Monsieur Croche et autres écrits*, ed. François Lesure, 2nd rev. ed. (Paris: Gallimard, 1988), 23. Quoted from Code's article.

[32] Montague concludes that 'it is quite possible to understand the physical qualities of the gestures made by a pianist as integral part of musical structure, interacting to create meaning with element such as harmony and voice-leading'. Montague, 'Instrumental Gesture in Chopin's Etude', 12.

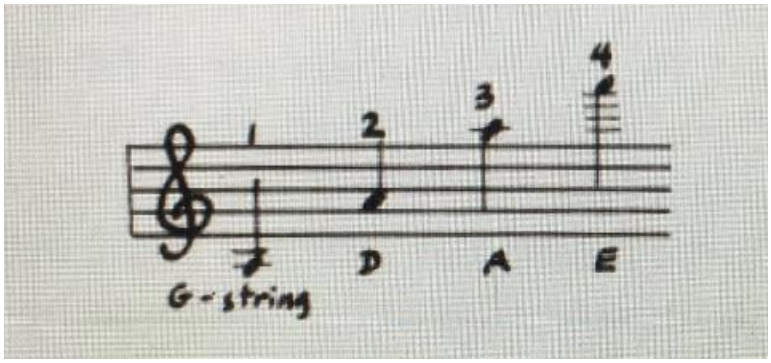
[33] Michael Tusa pointed to Weber's Variations and in particular the fourth variation of Op. 9, where the left hand chord spanned a tenth (F-C-F-A). Michael C. Tusa, 'In Defense of Weber' in *Nineteenth-Century Piano Music* edited by R. Larry Todd (New York: Routledge, 2004), 194.

and speed. Essentially Paganini's art is based on physical endowment, increased and developed by ceaseless practicing. [34]

For Paganini, such physical endowments contributed directly to the way he composed. His 24 caprices for instance, are exemplary in this respect. The passagework in number 19 of the set contains numerous large leaps between the double stopping dyad and single notes that are more than an octave apart.



Example 1.3 Paganini Caprice Op. 1 No. 19 Bars 17-24[35]




Example 1.4 Paganini's stretch on the violin[36]

While other performers have tended to execute this passagework, Example 1.3, by means of shifting their left hand quickly over the fingerboard, for Paganini this was achieved by 'sheer stretch'.[37] Boris Schwarz explained that 'Paganini was able to reach four As on four strings without moving his hands'.[38] To a large extent, based on these cases, compositional decisions and their outcomes are very

[34] Boris Schwarz, *Great Masters of the Violin: From Corelli and Vivaldi to Stern, Zukerman, and Perlman* (New York: Simon and Schuster, 1983), 198.
[35] Niccolò Paganini, *24 Caprices for Solo Violin Op. 1* edited by Carl Flesch (Leipzig: C.F. Peters, 1970), 36.
[36] Schwarz, *Great Masters of the Violin,* 198.
[37] Ibid.
[38] Ibid.

much predicated on the composers' ergonomics. Yet, more often than not, these physical attributes are not pursued further in detail apart from being mere observations.[39]

Elisabeth Le Guin's extensive research in this respect comes closest to the central aims of my work. While Le Guin and I deal with different instruments and composers, our research looks closely at how performers can be given a unique voice by prioritising the performative aspects of the work. As a cellist, Le Guin's pioneering study on Boccherini's body makes a connection with how movement is considered as an essential part of the composer's composition. However, throughout the discussion, Le Guin's approach to physical gestures and Boccherini's compositions is made through topics and trends in eighteenth century theatre, dance and painting rather than to the composer himself. Perhaps due to a lack of primary source materials, since the composer did not write specifically a performance treatise or a method book like Chopin, Le Guin had to turn to other means to draw that connection. Consequently, her monograph stems from her own physical sensations derived from her playing of the cello, and then compares art theories and concepts to the compositions of Boccherini, before synthesising ideas to form a theory between performance and music analysis. In so doing, it could be argued that Le Guin creates a web of loosely defined argument and subjective ideas, while in fact, she could have placed Boccherini's cello playing and compositions at the centre of her monograph. Her research nonetheless raises important questions which will be fruitful for me to consider in relation to my research on Chopin's haptics and his composition process. Le Guin asks:

> If the themes in this sonata movement are considered through a process of physicalistic association and transmutation of gesture, how was that process initiated and sustained? Did Boccherini just imagine playing, a kind of cellistic subvocalization informing his decisions […]? Or did he improvise, experiment fool around on his cello while seated next to a writing desk, and when something fine came to his fingers, quickly grasp a pen and write it down? [40]

Despite asking intriguing questions that challenge what conventional wisdom has to contribute to compositional process, Le Guin concedes that 'the visual images created by the physical gestures of playing will tend to be by-products, and not sources of aural and kinesthetic impulses'.[41] Whereas my study has prioritised Chopin's haptics as an essential consideration relating to his compositions alongside harmony and structure, rather than as a by-product, for Le Guin, such physical gestures take on a secondary role in Boccherini's compositions.[42] Nevertheless, Le Guin's unwillingness to prioritise

[39] Ibid. Schwarz has also observed that 'attempts to link Paganini's "secret" to his peculiar fingerings conditioned by the build of his hand, but the results are mostly speculation and guesswork.

[40] Elisabeth Le Guin, *Boccherini's Body: An Essay in Carnal Musicology* (Berkeley: University of California, 2006), 34.

[41] Ibid, 34.

[42] Le Guin writes 'it is important to distinguish between their functional secondariness in the creative process and their very considerable problematization in latter-day understanding of instrumental music.' Ibid, 35.

physical gestures as primary motivations to Boccherini's compositions is not without reason. This reason, in my opinion, is more significant than Cook's preoccupation with 'Plato's curse' and stems from a philosophical and Germanic bias. Le Guin goes on to explain:

> Our disdain of theatricalization and visualization in instrumental performance runs deep, a legacy of the German idealism that was developing during Boccherini's own day, and of the powerful notion of absolute music that emerged from it: more even than physical sensation, the notion of visual effect as intrinsic to the instrumental work is likely to seem excessive, even repellent. [43]

The current state of research on performance analysis, as shown, is still largely problematic. While I appreciate the various initiatives that have been undertaken to change the musical object at hand to audio or visual recordings so that the object that is currently being analysed shifts from the score to a product of the performer, the underlying problem still remains: the role of the performer is held at a lower position than music analysis and the text. 'Theatricalization' and 'visualization' components in performances that have caused much debate among critics as 'distraction to real music' should be recognised as components integral to a performer's activity and without which, the score will merely be a dead object. [44] Interestingly, the history of piano playing or 'doing' has a longer tradition than music analysis but has so often been undermined and forgotten.

The history of 'doing' can be traced back to some of the earlier treatises and teaching manuals on performance practice. CPE's Bach's *Art of Keyboard Playing* for instance records how ornaments should be played or what fingerings can be used.[45] By the early, and well into the mid-nineteenth century, most composers of that period including Muzio Clementi (1802), Johann Cramer (1812), Johann Hummel (1827), Friedrich Kalkbrenner (1831) and Chopin (1841 unpublished) engaged in writing treatises alongside their compositional and performing careers, conveying ways to approach the keyboard through instructions. These treatises, different from Carl Philipp Emanuel Bach's, focused on technical studies, hand positions and movements. As a concert pianist, Cortot also published his piano method in 1928 offering valuable advice on how to solve tricky piano passages.[46]

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[43] Ibid, 35.

[44] For instance, Eduard *Krüger, a German critic, in 1841 criticised virtuosos vehemently for distracting audiences from the sublime art. I discuss this in greater details in Chapter 5.*

[45] CPE Bach, *Essay on the True Art of Playing Keyboard Instruments* translated by William Mitchell (New York: Norton and Company 1949) [1753].

[46] As a pianist, Cortot did not have a natural gift for the instrument. 'He used to complain that his hands were clumsy and his technique was the result of a solid four hours' practice […]. He therefore became interested in the mechanics and psychology of how the hands learn and soon came to the conclusion that every difficult passage can be reduced to one or two basic problems and that practising the passage itself is counterproductive as well as wasteful of valuable time.' See Roger Nichols, 'Alfred Cortot 1877-1962' *The Musical Times* Vol 123 No. 1677 (1982), 762.

As much as it might have been lucrative, and also due to pedagogical reasons that motivated eighteenth and nineteenth century composers to write treatises, it is also possible that these composers were concerned with how their compositions could be better executed. The uniqueness of each of these treatises further demonstrates that each composer thought of technique differently to others. Conceivably, the interpretation of a composer's score will need to be accompanied by an understanding of the required piano technique of that particular composer, and as a result of such practical operations, the 'doing' should be considered as a component-part of music analysis and the composers' aesthetics.

In modern times, one of America's leading pedagogues, Dorothy Taubman, through her years of experience in working with injured pianists and other instrumentalists, emphasised the need to use various rotary wrist and economical hand movements. The guiding belief to her teaching is that 'no two problems are identical and yet basic principles are identical'.[47]In the documentary 'Choreography of the Hands', her teachings in a masterclass setting, deal also with fingerings, positioning of the hands so as to avoid 'twisting' and a physical motion that allows 'fingers, hand and arm to work as a unit'.[48] Taubman's documentary is valuable because, as her student Edna Goldansky explains, 'these ideas are not some strange, weird, mysterious work, this is knowledge and musicians are simply not used to the idea that there might be knowledge to help them with their problems' musically and technically.[49] The presence of historical treatises and Taubman's teachings disclose procedures and practical operations that belong to our keyboard repertoire. Despite their relevance, these procedures have never been considered mutually as an entity with analysis. The split between the construction of a work and its performative aspects have so often been considered as two separate entities. At the heart of my dissertation is the ambition to construct a model of analysis that allows one to see the extent of how a physical process can lead to compositional decisions.

Summary of Methodology

The model of analysis that I construct in this study aims to demonstrate how the 'reciprocal process' that both Cook and Lester speak of earlier in the discussion can be further developed. Like Lester, I approach analysis through my role as a performer. Through my playing of Chopin's sonatas, and through a close reading of Chopin's 'sketch for a method', I come to the conclusion that the

[47] Dorothy Taubman, 'Choreography of the Hands: The Work of Dorothy Taubman' YouTube Video, 52:01, posted by David Szabo, March 5, 2015. https://www.youtube.com/watch?v=47w_6IKHA1M. See section 4:16-4:21 of the video link.
[48] Ibid, 4:40-5:10 and 6:29-6:35.
[49] Ibid, 16:13-16:25.

construction of his sonatas goes beyond what a traditional formal analysis can explain. Extending the writings of historical treatises and teachings of Taubman, I come to view the score beyond its harmonic and structural elements. Through haptic analysis, I consider the various types of physicality accompanying each figuration, including its thematic and transition materials and harmony, one that is discovered through my playing. Examples of my analysis at the most initial stage will feature coloured arrows that denote how the hands move instead of harmonic progressions that traditional modes of analysis focus on. These examples will then be accompanied by video recordings taken from high and side angles, and also at various speeds (for clarity). Lastly, recordings of Op. 35 and Op. 58 will be provided to demonstrate the various hand movements working together at a macro level.[50] In so doing, the readers will be able to see clearly where the rotary movements are at different stages of the analytical process.

At times, some of the examples will be further supplemented by hypothetical examples. Because at the initial stage of my analysis I have developed haptic analysis from a single direction: from the perspective of a pianist trying to follow in Chopin's footsteps and trying to explain his compositions from a haptic perspective, I will therefore have been able to address ways in which his haptics have driven his compositions. However, I will not have been able to discuss the extent to which Chopin's haptics influenced his compositions overall, making them distinctively 'Chopinesque' pieces of music. Consequently, a possible way of doing this will be via a thought experiment, pairing each music example with a hypothetical alternative that conforms to standard compositional practices but that removes the influence of the haptic impulse. Thinking from this 'counter-factual' perspective will allow access to some of the options Chopin could have taken, but did not, and will illustrate how he chose the haptic option out of a wider set of possibilities. Although speculative, this can be a useful analytical tool as it is only through comparison that it is possible to demonstrate elements that are unique to and unusual in Chopin's sonatas.[51]

By no means is this dissertation an attempt to demonstrate how one should play Chopin's piano sonatas or an absolute method for making performance decisions. Not only are my hand movements dependent on the size and shape of my hands, but more importantly, 'mapping

[50] See video file 'Op 35 submission and Op 58 submission' for a full recording of the work.

[51] This approach has been taken by Boris Berman in his book on Prokofiev's Piano Sonatas. In order to show why Prokofiev's modulations differ from the norm, he first showed what the norm is through re-composition. See Boris Berman, *Prokofiev's Piano Sonatas: A Guide for the Listener and the Performer* (New Haven: Yale University Press, 2008).

[compositional] structure to performance' as Cook puts it is 'not naively literal.'[52] Therefore, for pianists reading this dissertation, the conclusions that I have drawn from haptic analysis are merely a starting point for others to further investigate suitable movements of their own, in relation to their own hands: rotary, sideways, horizontal or vertical, that will allow them to better execute Chopin's passagework. Despite the different handshapes that we all possess, the basic principles towards approaching the keyboard remain the same notwithstanding adjustments, for instance, to the angle of the wrist or to shoulder rotation. There will never be a 'one size fits all' model in performance studies. We are reminded of Schenker's failed attempt at a performance treatise on dynamic levels in 1926: 'explicit dynamic levels could be deduced with certainty from the level of the pitch structure' which he quietly discarded upon realising that it is unrealistic.[53]

My model of haptic analysis will allow me to offer new perspectives on Chopin's handling of the sonata principle, one that is achieved through a pianistic approach, which in turn will be able to inform analysis itself. The next chapter will demonstrate an in-depth discussion on the methodology that I have developed and further explain the reasons why haptics should be considered as part of Chopin's musical language.

[52] Cook, *Beyond the Score*, 35

[53] Ibid. Originally from Charles Burkhart, 'Schenker's Theory of Levels and Musical Performance' in *Aspects of Schenkerian Theory* edited by David Beach (New Haven: Yale University Press, 1983), 112.

## Chapter 2: Methodology of Haptic Analysis

While analytical writers studying Chopin's sonatas have illustrated how his thematic transformation takes into consideration harmonic and structural procedures provided by the sonata principle, the physicality and performative aspects of thematic transformation that come from his role as a pianist often go unacknowledged. For instance, in both the first movement and the finale of Op. 35, a very large portion of the figuration that Chopin develops, when played, leads to an extension of the hand or a series of circular movements. Such physicality, combined with Chopin's knowledge of harmony and structure, develops into motivic materials that have a thematic and textural logic of their own. At times, as in the last movement of Op. 35, haptic procedures are prioritised over the harmonic organisation of the piece. One could arguably contend that, for Chopin, thematic transformation or the development of motivic materials do not simply follow traditions and conventions set out by the sonata principle. Instead, they are sometimes accompanied by, and are dependent upon, the manner in which he moves his hand on the piano.

### Justification

The reason for choosing Chopin as the candidate for my model of haptic analysis is by no means arbitrary. Although many composers, including Bach, Beethoven and Mozart, were known for their improvisatory skills at the keyboard, none of them shared such a close affinity for the piano as Chopin, who throughout his entire lifetime composed uniquely and solely for the piano.[54] By choosing his sonatas as examples for case study, this investigation goes further to illustrate that even in a genre that has been traditionally viewed as intellectually abstract, Chopin's haptics have a very large role to play in determining how harmonic and thematic materials take a particular shape. In other words, the resulting shape of many harmonic and thematic materials are a consequence of his haptic process. The sonatas provide an extra challenge because, unlike some of Chopin's other pieces, such as Op. 61, there are no sketch sources. Therefore, it becomes even more difficult to determine the extent to which his haptics influenced his sonatas and whether his compositional ideas prompted his haptics or vice versa.

While it is highly unlikely to derive absolute answers without the presence of a sketch, Chopin's account of his inability to compose without a piano during his winter months in Majorca between 1838-1839 reveals a telling point: the initial impetus of his composition comes from his physical

[54] Although Chopin did compose works for other instruments, all of these works include a piano part, for instance his piano trio and two piano concertos.

contact with the instrument.[55] His letter to Pleyel, 21st November 1838, recorded his first complaint: 'I dream of music but I can't write any because there are no pianos to be had here - in that respect it is a barbarous country'.[56] In examining such correspondents, Australian conductor and writer Paul Kildea's latest publication summarised Chopin's reliance on the instrument of that particular occasion:

> It was the complaint of an artist thrown from his routine, a composer who habitually wrote his exceptionally original works at the piano and who now found himself without the one tool he needed.[57]

Chopin's subsequent letters to his close friend Julian Fontana repeatedly pointed to his frustrations due to an absence of a piano. In his first letter, Chopin wrote: 'I can't send you the manuscript as I haven't finished it […] There is only one thing: I have no piano. I have written directly to Pleyel'.[58] In his third letter to Fontana 14th December 1838, when his piano has still yet to arrive, Chopin further complained:

> I learnt only today that on December 1 the piano was loaded onto a merchant vessel at Marseilles. I suppose the piano will spend the winter in port […] Meanwhile, my manuscripts sleep, while I get no sleep at all. I can only cough, and, covered in poultices, await the spring or something else.[59]

In an earlier letter to Wojciech Grzymała, on 3 December 1838, George Sand penned that 'the lack of a piano is a source of great distress to me on the boy's [Chopin] account. He has hired a local one which gives him more vexation than consolation. All the same he is working.'[60] Despite the absence of a proper piano, Chopin did have a piano constructed by Jaun Bauza to work with. Quite possibly, he carried on working on some of his Op. 28 preludes on this local piano which he had previously started while in Paris. Nevertheless, as Sand observed, and from Chopin's correspondence to Fontana, this local piano was insufficient for Chopin's compositions to be fully realised. To his delight, Pleyel's upright finally arrived in early January 1839. Chopin was able to add finishing touches to his compositions and sent them out to his friends and publishers in Paris. In both letters dated on 22nd January 1839 to Fontana and Pleyel respectively:

> My dear friend, I am sending you the Preludes [...] In a week or two you will receive the Ballade [Op. 38], Polonaises [Op. 26] and Scherzo [Op. 39].[61]

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[55] In a letter, Chopin mentioned that he was unable to compose without a piano. Chopin to Pleyel (Palma, 21 November 1838). See Fryderyk Chopin, *Selected Correspondence of Fryderyk Chopin* Collected and Annotated by Bronislaw Edward Sydow edited and translated by Arthur Hedley (London: Heinemann, 1962), 163. A week earlier, Chopin pursued Fontana to 'call at Pleyel, for the piano hasn't arrived yet'. Ibid, 162.
[56] Chopin, *Selected Correspondence*, 163.
[57] Paul Kildea, *Chopin's Piano: A Journey through Romanticism* (London: Allen Lane, 2019), 20.
[58] Ibid, 164.
[59] Ibid, 165.
[60] Ibid, 163-164.
[61] Ibid, 165.

> Dear friend, I am sending you the Preludes. I finished them on your cottage piano which arrived in perfect condition in spite of the sea-crossing, the bad weather and the Palma customs.[62]

Apart from the above stated compositions, numerous other works were also composed during this period. This includes the Op. 35 Sonata, the Op. 41 No. 1 Mazurka and the Op. 37 Nocturnes. The arrival of Pleyel's upright brought much comfort to Chopin. Although Chopin was a composer, he was also a pianist; more pointedly, he was a pianist dependent on a good quality piano for his compositional process. Our current mode of analysis has allowed us to understand Chopin's compositions solely from a heritage in which structure, harmonic, thematic and voice-leading procedures provide all the answers. Yet, this is a very limited way of understanding Chopin's compositions since it does not acknowledge the central role of the piano itself in the creative process and implies that Chopin could have worked out his compositions away from the instrument.

The Methodology

The methodology that I will be developing in this chapter, haptic analysis, takes that initial impetus as its starting point. Because of the close relationship that Chopin shares with the piano, as seen from his letters, analysis of his compositions has to take into account some sort of physicality to render a fuller insight into his compositions and his compositional process. This will then be accompanied by a close reading of Chopin's uncompleted 'sketch for a method'.[63] The process of haptic exploration not only affects how the figurations are being developed; on some occasions, it has a direct influence on articulation, harmony and rhythm. For instance, Chopin's fondness for using the natural weight of the right hand in twos against the left hand in threes leads to two different physical movements, even when the notes in both hands are going at the same speed. Consequently, those different hand movements force the rhythm into a 2 against 3 hemiola, so that the right hand shifts every 2 while the left hand shifts every 3.[64] I have termed this direct relationship between Chopin's haptics and a physical hemiola that results, a 'haptic hemiola'. At times, he also seems to be improvising on the rocking circular motion of the wrists that distributes the weight of the hands unevenly, leading to other kinds of polyrhythm: these elements will be discussed in greater detail later in the chapter. The initial starting point of this methodology is not without justification, as such a method of analysing Chopin's compositions through the haptic process is currently lacking in Chopin scholarship.

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[62] Ibid, 165.
[63] Frederic Chopin, *Projet de Méthode* quoted from Jean-Jacques Eigeldinger, *Chopin vu par ses élèves* (Neuchâtel: A la Baconnière, 1988), 382.
[64] See Chapter 6 for further discussion.

Between Haptic and Score-based Analysis

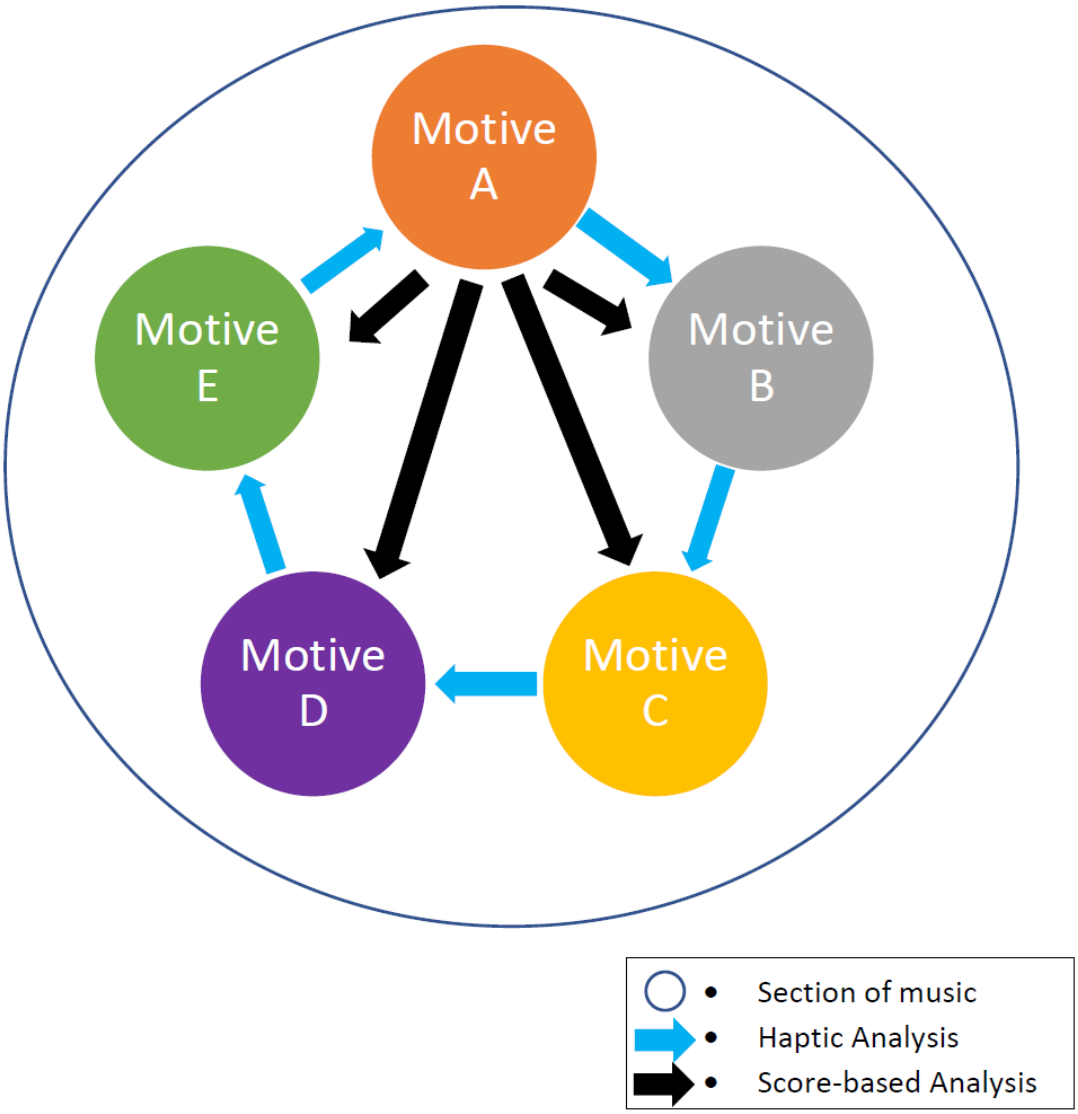


Figure 2.1 Score-based analysis vs Haptic analysis

The difference between haptic analysis and score-based analysis can be represented by the above diagram. A characteristic of score-based analysis is that the analyst begins by presuming the composition at hand is organically unified through an intellectually worked-out process. Using the above diagram as an example, within a section of a composition, the role of the analyst is to prove the relationship between each part (Motives A-E) and how they come together to contribute to the composition as a unified whole. This process involves prioritising motive A and considering the other motives B-E as an outgrowth of motive A via various techniques of thematic transformation. Often, the logic of a composition is further explained through the analyst's knowledge of structure and

harmony. Because score-based analysis is concerned solely with musical structures and harmony, when applied to performances, this form of analysis will be unable to reveal other performative elements.

Although I begin with the same assumption as a score-based analyst, I seek to explain the same phenomenon through a physical process. Haptic analysis therefore assumes that each motive has a physical element and it is likely influenced by the physicality of the composer composing at the instrument. In short, it looks at the extent to which compositional decisions are predicated on ergonomics. Thus, it prioritises the physical 'feel' of a composition and traces a continuous compositional process of how one motive has led to another via the composer's haptics. It contends that the underlying physicality of each motive develops and subsequently unites the composition together through a physical process. This mode of analysis respects the fact that we see and analyse music in time and recognises how it continuously moves forward in one direction like an improvisation. Because haptic analysis prioritises the physicality of motives, it can reveal and explain subtleties that can only be expressed through playing such as a haptic hemiola. In sum, a haptic analyst seeks to find out how a composer's process of haptic exploration has linked up each motive into a continuous whole through his or her playing of the piece, while a score-based analyst seeks, through a reading of a piece, to find out how a composer has worked out each different motive intellectually and put them together into a unified whole.

A few problems arise from using score-based analysis to analyse Chopin's sonatas. Firstly, the starting assumption of score-based analysis is that a work must be organically unified. This assumption has come under attack in the past few decades, notably in the writings of Alan Street, Kofi Agawu, Daniel Chua, Joseph Dubiel, Kevin Korsyn and Jonathan Kramer.[65] These writers contend that disunity, fragments and discontinuity are aesthetic values, existing alongside the concept of unity in the works of Mozart, Beethoven and Brahms.[66] Interestingly, none of the abovementioned scholars have

[65] Alan Street, 'Superior Myths, Dogmatic Allegories: The Resistance to Musical Unity' *Music Analysis*, Vol. 8, No. 1/2 (1989), 77-123. Joseph Kerman, 'How We got into Analysis and How to Get Out' *Critical Inquiry*, Vol. 7, No. 2 (Winter, 1980), 311-331. Jonathan D. Kramer 'The Concept of Disunity and Musical Analysis' *Music Analysis* Vol. 23, No. 2/3 (2004), 361-372. Daniel Chua, *The Galitzin Quartets of Beethoven* (Princeton: Princeton University Press, 1995), 54-104. Mieke Bal, 'De-disciplining the Eye', *Critical Inquiry* Vol 16 (1990): 506-31.

[66] Chua, *Quartets of Beethoven*, 102-106. With reference to Brian Hyer's analysis of Mozart's G Minor Symphony, Kramer explains that the passage bars 247-251 is 'exciting because of its textual disunity rather than any sense of belonging organically'. Yet he explains that if this passage is analysed in traditional terms, it would eventually point towards unity and continuity. To quote him at length, 'a traditional analysis would point to the voice-leading connections between this passage and the previous and subsequent music, thereby positing both unity and continuity; this passage is not, after all, divorced from the movement's continuity in every possible way. But such an analysis privileges continuity over discontinuity, textual unity over disunity'. See Jonathan Kramer,

undertaken post-unity studies on Chopin. While earlier scholars starting from Schenker, Leichtentritt and Réti have demonstrated that Chopin's compositions are organically unified, there is still a problem locating Chopin analytically as the compositional unity of his works are not only situated in compositional outcomes but are also dependent on haptic processes. Consequently, this group of post-unity analysts, through their aim of changing perspectives and interpretation on unity, has tended to target Austro-German composers, leaving Chopin outside the field.

However, what is even more problematic is that this aesthetic starting point of unity or non-unity has been claimed as belonging to that of the 'great German tradition', which has little relevance to Chopin's biographical and historical status: a pianist-composer who was born and trained in Warsaw and from 1829 onwards moved to Paris. Joseph Kerman's 1980 article on analysis sums up poignantly the problem of score-based analysis:

> The vision of these analyst-critics was and is of a perfect, organic relation among all the analyzable parts of a musical masterpiece. Increasingly sophisticated techniques of analysis attempt to show how all aspects or "parameters" or "domains" of the masterpiece perform their function for the total structure [...] From the standpoint of the ruling ideology, analysis exists for the purpose of demonstrating organicism, and organicism exists for the purpose of validating a certain body of works of art. Organicism can be seen not only as a historical force which played into the great German tradition but also as the principle which seemed essential to validate that tradition.[67]

In other words, analysis serves the fundamental goal of demonstrating organic unity in a work which in turn serves to validate a canon of Austro-German works. Kerman cites the compositions of Bach, Haydn, Mozart, Beethoven and Brahms as examples of the canon. For Kerman, then, the main problem of analysis is that it ultimately serves the purpose of prioritising an ideology over finding musically-rooted interpretations.[68]

In contrast, the methodology of haptic analysis that I am constructing begins by considering Chopin's role as a pianist, and the extent to which his role as a pianist has influenced the construction of his compositions. Because Chopin's activity as a composer is inextricably link to his pianism and since playing the piano involves a physical aspect, this mode of analysis emphasises a different kind of organicism. The concept of organicism that musicologists and analysts often draw upon first appeared in Plato's *Phaedrus*. Plato did not relate this concept to music or any other contexts:

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*Postmodern Music, Postmodern Listening* edited by Robert Carl (Bloomsbury: Bloomsbury Academic, 2016), 104-105.

[67] Kerman, 'How We got into Analysis and How to Get Out', 315.

[68] Ibid.

> [A] discourse must be organised, like a living being, with a body of its own, as it were, so as not to be headless or footless, but to have a middle and members composed in fitting relation to each other and to the whole.[69]

Later, in the early decades of the twentieth century, music analysts including Réti and Schenker developed their analytical writings metaphorically along these lines to explain how various smaller parts of a composition were an outgrowth of others and how each part works together to form a whole in an organic fashion. As a key concept of musicology, David Beard and Kenneth Gloag explained that:

> Organicism reflects the idea that the musical work is an organism in which parts combine together as a functioning whole, appropriating the body as a metaphor for the musical work, but it does so through the specific notions of growth, expansion and transformation, all of which play with organicist images of both nature and body.[70]

The 'organism' that music analysts are concerned with stems from how thematic ideas or the fundamental bass line has been developed in the score. In comparison, as a pianist, I am interested to trace how Chopin's activities as a pianist can bring about a different type of organicism in his compositions. This type of organicism extends beyond traditional concepts of organicism as the outgrowth of transformation is not solely dependent on how harmonic and thematic ideas develop on paper, but also through haptic processes which then help to achieve another aspect of unity: physical unity. Nevertheless, and perhaps inevitably, such physical unity will first be exemplified in reference to the score. In the first movement of Chopin's Op. 35, for instance, the entire exposition is constantly evolving in large incremental slabs, pursuing a single improvisational stream. Haptic analysis acknowledges this forward drive as coming from Chopin's physically-driven improvisations and uses it to produce a new way of thinking about structure.

Secondly, from a performer's perspective, score-based analysis trivialises other performative aspects of Chopin's sonatas. By prioritising a handful of notes that are considered to have contributed to the composition's organic unity and structure, other performative elements including articulation, rhythm, texture and performance directions which are essential to the performance of the sonatas, are held in a subsidiary position. While it goes beyond the scope of my dissertation to give a detailed explanation of how each of these elements work together to contribute to the structure of the sonatas, because haptic analysis deals with how the hand 'feels' the figurations when played at the piano, it considers the texture of the figurations as a whole and how it unfolds during the compositional process, rather than prioritising a few selected pitches. It also deals with rhythmic elements as they

[69] Plato, *Phaedrus* in *Plato* in *Twelve Volumes* translated by Harold North Fowler (Cambridge: Harvard University Press, 1937), 264C.
[70] David Beard and Kenneth Gloag, *Musicology: The Key Concepts* (London: Routledge, 2005), 94.

occur at a local level. This mode of analysis therefore allows the initial impetus of Chopin's works, one that comes through his haptic process and his handshape, to be recognised as a fundamental contribution to the overall construction of his works.

Like Kerman, Robert Morgan's article similarly expressed his reservations on the prevailing concept of unity.[71] He contended that 'a focus on unity […] exaggerates the integrity of the whole, making us blind to inconsistencies and discontinuities that would emerge under less restrictive interpretative rubrics'.[72] Put another way, Morgan is concerned that by analysing and judging a work based primarily on its organicism and overall unity, we have blinded ourselves to other possible ways of understanding the piece, such as investigating a more momentary and improvisational approach to interpretation. Later in the article he points further to the future goals and functions of analysis:

> It is true that analysis need not be concerned solely with how music is constructed; it can also address the ways it communicates, reflects aspects of the composer's life or historical context, relates to social or political issues, or whatever. There is no reason, in other words, why analysis has to be purely formalistic.[73]

For Morgan, there are multiple ways in which one can analyse music apart from its structure and harmony. What Morgan has drawn attention to in this instance is the relationship between a composer's biographical events and their compositions. In a similar vein, I have chosen in my model of analysis to understand Chopin's compositions through his haptic processes so as to attribute the construction of his music to his pianism rather than to intellectual work alone. Consequently, the process of looking at how each figuration is developed incrementally and/or continuously via haptic exploration allows a performer to consider every figure or instance of passagework as contributing to the inner workings of the sonata. Such a way of analysing helps to provide insights to the following questions, which in a score-based analysis will prove futile:

1. Why are certain figurations constructed in a particular manner, apart from their contribution to the structure of a work?
2. What are their implications for performance?

Yet this is not to say that score-based analysis is useless. Every analytical model has advantages and limitations. When used together they can compensate for each other's shortcomings. Score-based analysis, for instance, helps to provide the performer with a macroscopic view of the construction of the work. As a performer, I find score-based analysis extremely useful during the final

[71] Robert P. Morgan, 'The Concept of Unity and Musical Analysis', *Music Analysis*, 22 (2003), 7-50.
[72] Ibid, 23.
[73] Ibid, 26.

stages of preparation for an upcoming performance. It allows me to memorise a skeleton outline of a composition's tonal plan which, in the event of a memory slip during performance, allows me to quickly progress to the key of the next section.

On the other hand, such a reductive process results in a loss of understanding about Chopin's idiomatic writing, which is essential to the logic of the composition, and which a haptic analysis on a microscopic level can help to supplement. After all, a performance of a composition needs to make sense of every detail of the score.

Chopin's *Projet de Méthode* or 'Sketch of a Method'

A survey of Chopin's *Projet de Méthode* (*PM*) will help to illustrate the reasons why his haptics are essential to the understanding of how his compositions are constructed and provide a basis for the process of haptic analysis. Although not a complete treatise like those of Czerny or C.P.E Bach, Chopin's unfinished *PM* is the only surviving document that allows us to gain a glimpse of some of his ideas on piano technique, his views on teaching, and his understanding of the capacity of the hands.[74] His pioneering views on how to approach the piano stem directly from his playing, which differs remarkably from his contemporaries and has a direct influence on how he composes and teaches.

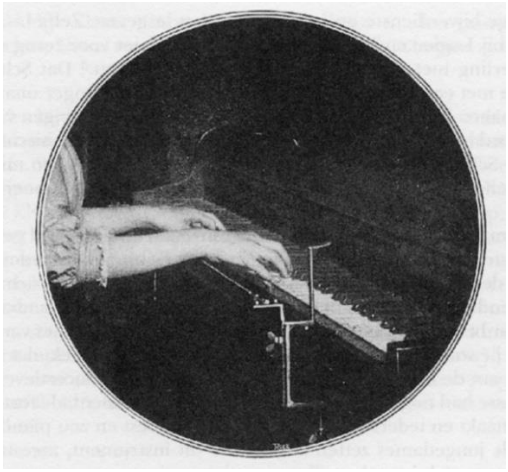
Origins

While it is unclear when Chopin began working on his *PM*, according to studies by Eigeldinger, the majority of the folios corresponded to paper that Chopin used for compositions between 1844 and 1846, leading Eigeldinger to speculate that it was therefore most likely written during this period.[75] Eigeldinger further pointed out that in 1841 Chopin wrote to his copyist, Julian Fontana, that he had received an offer of 300 francs from a publisher to write a set of etudes or a method—which

[74] C.P.E Bach, *Essay on the True Art of Playing Keyboard Instruments* translated by William Mitchell (New York: Norton and Company 1949) [1753]. Carl Czerny, *Letters to a Young Lady, on the Art of Playing the Pianoforte* translated by J.A. Hamilton (New York: Firth Pond and Co. 1851).

[75] 'Chopin fait usage du papier qui correspond à celui de ces ff°s 11 et 9 entre le printemps 1844 et l'été 1846. Ces pages ont quelque chance d'avoir été rédigées dans le calme de Nohant plutôt qu'à Paris. Pour 1844, les époques possibles sont : juin- première quinzaine de juillet (suit, pour six semaines, le séjour en France de la sœur et du beau-frère de Chopin, qui n'a guère pu travailler alors) et septembre-novembre ; néanmoins cette dernière période a dû être essentiellement consacrée à la composition de la Sonate en si mineur op. 58 parue à Londres dès avril de l'année suivante.'[ These pages might possibly have been written in the quiet of Nohant rather than in Paris. In 1844, the possible periods were: June-first fortnight of July (followed by a six-week visit from Chopin's sister and brother-in-law, during which Chopin can hardly do any work) and September-November; Nevertheless, this last period had to be mainly devoted to the composition of the Sonata in B minor op. 58 published in London from April of the following year.] Jean-Jacques Eigeldinger, Frédéric Chopin: esquisses pour une méthode de piano (Flammarion: 1993), 14.

he had rejected because the fees were too low.[76] It is possible that Chopin was tempted by the idea of a method in 1841, and that he then began working on it between 1844 and 1846. Because the *PM* was written after Chopin had composed the vast majority of his piano compositions, it could be viewed also as a reflection on some of the techniques that worked for him, and how he negotiated his own physical capabilities with the piano to generate speed and brilliance.



Illustraton of Kalkbrenner's *Guide-mains*

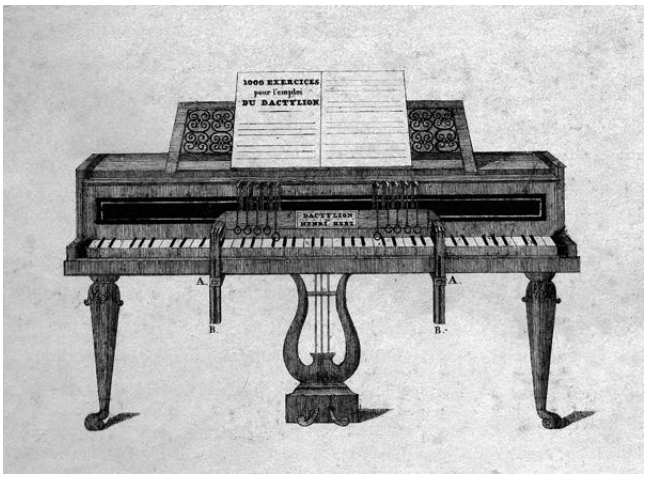



Illustration of Herz's *Dactylion*

Figure 2.2 Illustrations of Mechanical-aids[77]

Earlier treatises on piano playing by Muzio Clementi, Johann Cramer and Friedrich Kalkbrenner focused on developing equal strength in each finger through mechanical study and a quiet hand position without excessive arm movement.[78] Kalkbrenner, for instance, modified the *chiroplaste* of Johann Logier to create what he called a *guide-mains* for teaching purposes. The *guide-mains* is a rod which is placed parallel to the keyboard. It acts as a support for the wrist and the rest of the forearm during a pianist's practice session so that the fingers are free of tension and thus develop independence and strength. The *guide-mains* ensures that the 'hand-position can no longer be incorrect'.[79] Similarly, Henri Herz invented another device, the *Dactylion*, consisting of ten strings each with a ring attached at the bottom end placed above the keyboard. The pianist then inserts his/her

[76] 'A l'automne de 1841, Chopin précise à son ami Julian Fontana les conditions auxquelles il entend céder à un éditeur l'Allegro de concert tout juste mis au net, écrivant : il ne pourrait avoir la prétention de payer 12 Études ou Une Méthode de piano, 300 fr. Il en est ainsi pour l 'Allegro maestoso [Op. 46] que je t'envoie aujourd'hui ; je ne puis le lui donner pour 300 fr. et pas à moins de 600.' Ibid, 12.

[77] Illustrations are taken from Jan Marisse Huizing, *Frédéric Chopin: The Etudes: History, Performance, Interpretation* translated by Matthias Müller (Mainz: Schott Music GmbH & Co. KG, 2015), Preface.

[78] Muzio Clementi, *Introduction to the Art of Playing on the Pianoforte Op. 42* [1801] (Da Capo Press, 1974). J. B. Cramer, *Instructions for the Piano Forte* (London: Chappell [1812]). Friedrich Kalkbrenner, *Méthode pour apprendre le piano-forte à l'aide du guide-mains: contenant: les principes de musique, un système complet de doigter, la classification des auteurs à étudier, des règles sur l'expression, sur la manière de phraser, sur la ponctuation musicale, etc : suivie de douze études : Op. 108* (Paris : Chez I. Pleyel et Cie, [1831]).

[79] Kalkbrenner, *Méthode*, Preface, 4.

fingers into each ring so that after striking the key, the string pulls the finger back to its original position. Quite often, such physical exercises are developed independently from compositional activities.[80] Kalkbrenner was known to have 'read while practicing' with the *guide-mains*, while Schumann, in his eagerness to strengthen his right hand's fourth finger, injured it when using the *Dactylion*.[81]

Chopin understood piano technique quite differently. In his monumental study, *Chopin as Pianist and Teacher*, Eigeldinger observed that in contrast to contemporaries who 'regarded the acquisition of virtuosity as a collection of recipes […] in a daily regime consisting of long hours of digital gymnastics and stubborn repetition of Etudes de *mécanisme*', Chopin was 'resolutely turning his back on many piano professors of his time […] whose teaching [was] based on a mechanistic conception of instrumental playing'.[82] In the *PM* Chopin criticised previous piano treatises as 'tedious and useless and having nothing to do with the study of this instrument', and described his definition of a 'well-formed technique':

> For a long time, we have acted against nature, exercising the fingers to give equal strength. Since each finger is shaped differently, it is better not to try to destroy the special charm of each finger, but rather to develop it. Each finger has strength according to its physical form. The thumb, being the largest and the shortest, is the freest; The fifth as the other end of the hand; The third as middle and fulcrum; The second after, and then the fourth, the weakest. One desperately wants to detach from the third which is impossible. There are as many different sounds as there are fingers and the essential point is how to finger things well [...] As one must make good use of the physical form of the fingers, it is also necessary to use the rest of the hand, that is the wrist, the forearm and the arm. One should not play everything from the wrist, as Kalkbrenner claims. [83]

The above technical statement by Chopin presents one of the most important pieces of evidence underpinning my ideas of haptic analysis. Whereas Schumann tried to strengthen his fourth finger through mechanical means, Chopin accepted that the fourth finger is 'the weakest' since it is 'impossible' to 'detach from the third'. This understanding of the natural ability of the hands is

[80] The target audience for these methods are the amateur pianists but were also used by pianists including Kalkbrenner and Schumann.
[81] Kalkbrenner, *Méthode*, Preface, 4 and Huizing, *Frédéric Chopin: The Etudes,* Preface.
[82] Jean-Jacques Eigeldinger, *Chopin: Pianist and Teacher as Seen by his Pupils* edited by Roy Howat and translated by Naomi Shohet (Cambridge: Cambridge University Press, 1986), 16.
[83] Eigeldinger, *Chopin vu par ses élèves,* 57, 67. 'On a longtemps agi contre nature [en] exerçant les doigts à donner de la force égale. Chaque doigt étant conformé différemment, il vaut mieux ne pas chercher à détruire le charme du toucher spécial de chaque doigt, mais au contraire le développer. Chaque doigt a de la force selon sa conformation. La pouce, la plus grande comme [étant] le plus gros, le plus court et le plus libre ; le cinquième comme [formant] l'autre extrémité de la main ; le troisième comme milieu et point d'appui ; le second après et puis le quatrième, le plus faible, celui qui est le siamois du troisième lié à lui par un même ligament, et que l'on veut à toute force détacher du troisième — chose impossible et Dieu merci inutile. Autant de différents sons que de doigts-le tout, c'est de savoir bien doigter […]. Comme il faut utiliser la conformation des doigts, il faut non moins utiliser le reste de la main, c'est [-à-dire] le poignet, l'avant-bras et le bras. Il ne faut pas vouloir tout du poignet, comme Kalkbrenner pretend'.

reflected in Chopin's compositions and performances which, nevertheless, often dumbfounded his contemporaries, especially regarding the touch that he himself produced at the piano. As early as 1833, Berlioz wrote that 'virtually nobody but Chopin himself can play his music […] his playing is shot through with a thousand nuances of movement, of which he alone holds the secret, impossible to convey by instructions.'[84] Antoine-François Marmontel, who often frequented Chopin's salon recitals, gave a more explicit summary of Chopin's playing:

> But where Chopin was entirely himself was in his marvellous way of leading and modulating the sound, in his expressive, wistful way of colouring it. He had a completely individual manner of touching the keyboard, a supple, mellow touch, creating sound effects of a misty fluidity whose secrets he alone knew.[85]

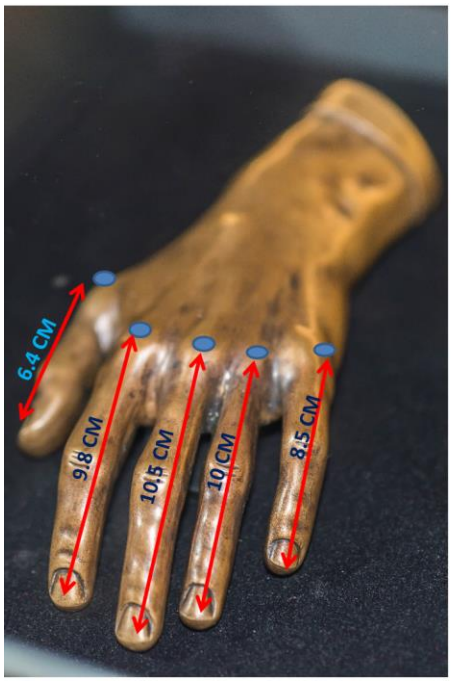
What then was Chopin's 'secret', detected by both Berlioz and Marmontel? The words that Marmontel used in the above description, 'mellow touch' and 'misty fluidity', go precisely against the idea of equal fingers. By capitalising on the natural shape of the hand, one that is not a perfectly weighted object, Chopin in turn was able to create a touch that was magical and subtle. The 'secret' to Chopin's playing was perhaps the 'unevenness' that he cultivated in his hands, and that produced the dappled light and shade that seemed so wistful. This 'secret' of Chopin's was made clear by a reporter and published in the London *Athenaeum*:

> Whereas other pianists have proceeded on the intention of equalising the power of the fingers, M. Chopin's plans are arranged so as to utilise their natural inequality of power, and if carried out provide varieties of expression not to be attained by those with whom evenness is the first excellence.[86]

From these reviews, we can gather that Chopin understood piano technique in a new manner. In a similar way, in his compositions, figurations are developed based on the ergonomics of the hands, wrists and arms. Often, both the thumb and the fifth fingers are used for voicing purposes, with the longer middle fingers acting as a pivot. His approach to moving across the keyboard can be broadly summarised as a series of circular wrist movements which he then unites with harmonic and structural principles. The end result is often unexpected and innovative.

[84] *Le Rénovateur*, II/345, 15 December 1833.
[85] Antoine Marmontel, *Les Pianistes Célèbres* (Paris: Silhouettes and Médaillons [1878]), 4.
[86] *Athenaeum*, 1 July 1848, 660.

Chopin's Left Hand and the Piano

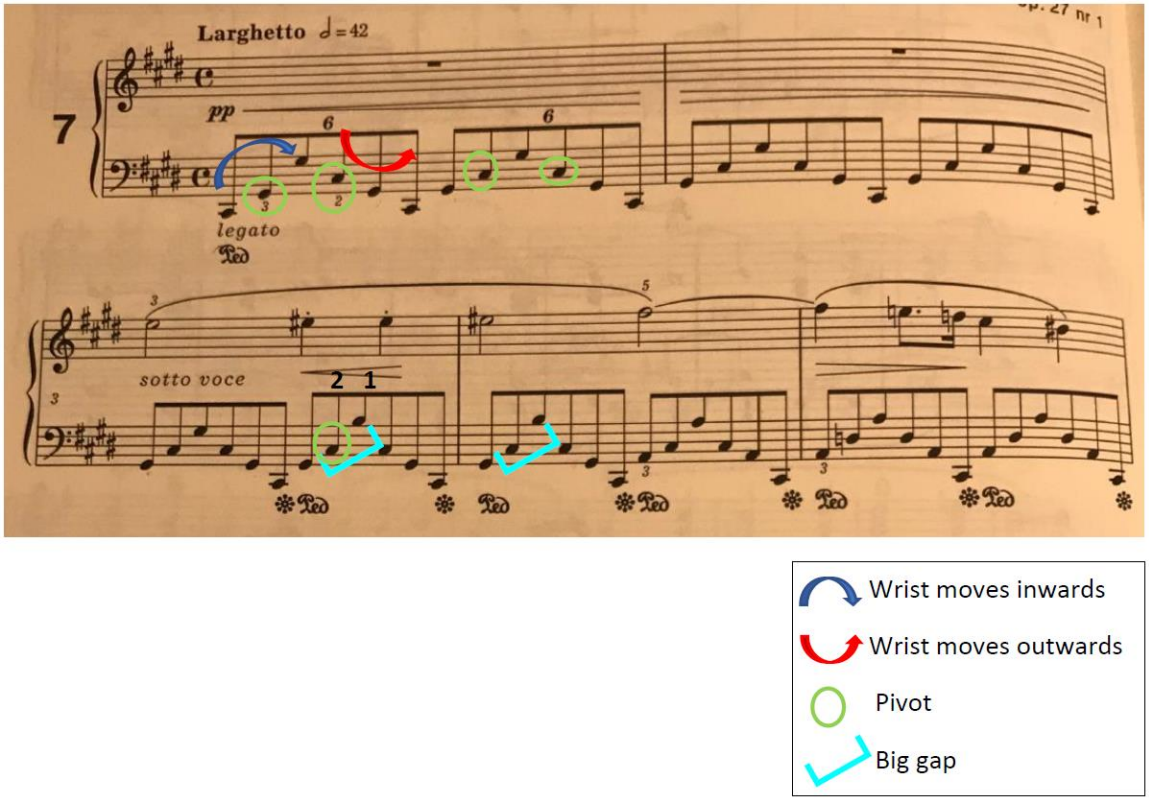



| Length of each finger | Chopin (cm) | Lim (cm) |
|---|---|---|
| Thumb | 6.4 | 5.4 |
| Index | 9.8 | 8.3 |
| Third | 10.5 | 9.3 |
| Fourth | 10 | 8.9 |
| Fifth | 8.5 | 7.3 |

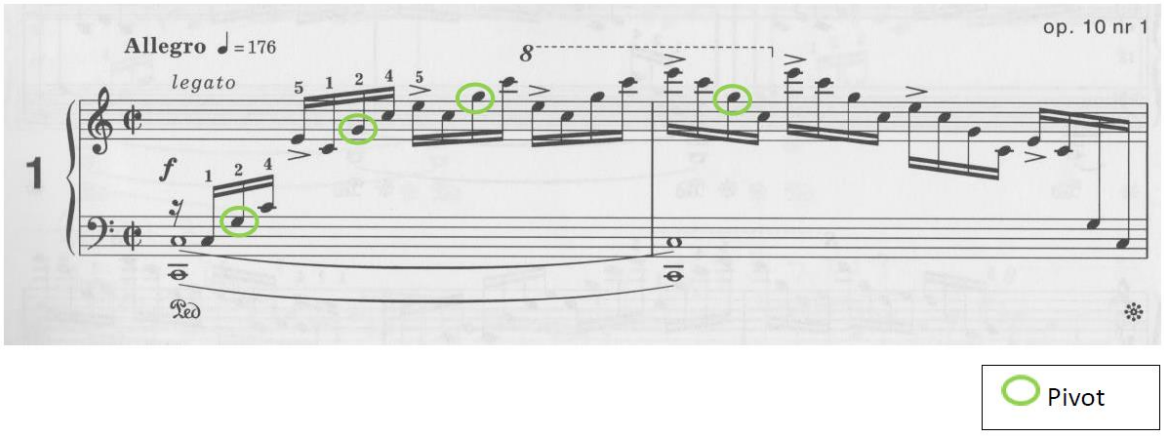
Figure 2.3: Measurements of Chopin's and Lim's Left Hand

Chopin's haptic process, or put simply, how he touches the piano, is largely dependent on two factors: the shape of his hands and the instrument which he touches. The above photograph was taken during my research trip to Chopin's museum in Warsaw, while the measurements were taken at the RNCM collection. The measurement of his fingers above shows that Chopin, despite having a rather small hand, had very long fingers. In comparison to my left hand, his thumb is a centimetre longer, while the rest of his fingers are 1.2-1.5 cm longer than mine. The nature of Chopin's hand led him to realise that the index finger, rather than third finger, was the pivot. In his PM he writes, 'the pivot is the index finger, which divides the hand in half when it spreads open'.[87] By allowing the index finger to take on the role of a pivot, Chopin allowed himself a greater ranger of wrist rotary movement and hence more complex harmonic and thematic variety when composing as illustrated in the examples below.

[87] Eigeldinger, *Chopin Pianist and Teacher*, 29.




Example 2.4 Chopin Nocturne Op. 27 No. 1 Bars 1-4[88]



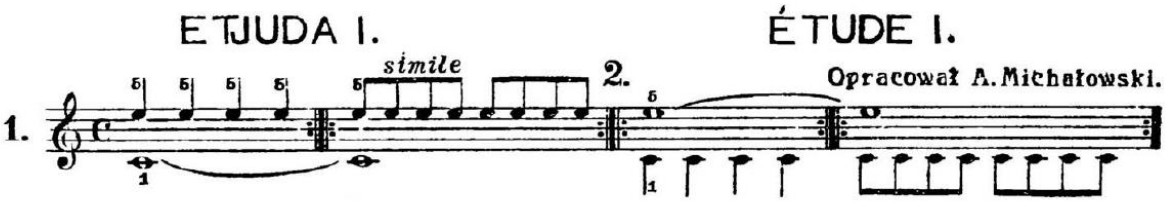

Example 2.5 Chopin Etude Op. 10 No. 1 Bars 1-2[89]

In bar 1 of Nocturne Op. 27 No. 1, the lowest and highest note of the left hand harmonic figuration is a 12th apart. Yet, this is not achieved by stretching the hand. Instead, the pianist uses the wrist to move sideways, pivoting around the second finger (except for the first instance where the

[88] Fryderyk Chopin, *Nocturnes* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2010), 48.
[89] Fryderyk Chopin, *Etudy* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 1999), 13.

third finger is used), adding the pedal for colour.[90] Clearly, a pianist with a smaller hand like myself will require a bigger sideways movement to get around this figuration. In bar 3, perhaps taking advantage of his long thumb, Chopin extends the C-G interval to C-B, adding a new harmonic colour to the tonic minor. Because of the bigger interval, the physical challenge required for this extension provides the pianist with an opportunity for *expressive rubato*. As I have demonstrated in the video clip, when played together with the right hand melody, the turn to tonic major provided by three consecutive E sharps has allowed me to achieve a broadening effect.[91]

The same can be said in a more virtuosic context. In Op. 10 No. 1, Chopin again uses the 2nd finger and his supple wrist to get rapidly around each of the arpeggio patterns that is spaced at a 10th apart. Despite not having a huge hand, his contemporary Heine described the 'deceptive span' of Chopin's hands as 'the jaws of a snake suddenly opening to swallow its prey'.[92] This fundamental technique of Chopin's pianism depended largely on a wrist action that allowed him to play music with large intervals. This was perhaps not fully understood by the widely influential pedadogue, Aleksander Michałowski who suggested stretching exercises as preparatory work for this etude:




Example 2.6 Michałowski's Exercises [93]

Polish pianist Michałowski taught widely in Warsaw and published books on piano playing. One of these is his preparatory exercises for Chopin's Op. 10. In the first exercise, he instructs the pianist to hold on to the thumb while stretching a 10th to play the higher E and the reverse for the second exercise. Such exercises, aim at developing finger strength over a wide span, have little to do with this particular Chopin study. Further in the PM, Chopin, in contrast to the traditionally preferred key of C major as a starting point for beginners, believed that B major should be the first key that should be taught. The reason rests solely on the topographical nature of the instrument.

[90] See video examples 2.4a and 2.4b for a demonstration.
[91] See video examples 2.4c and 2.4d.
[92] Quoted from Alan Walker, *Fryderyk Chopin: A Life and Time* (London: Faber and Faber, 2018), 263.
[93] Aleksander Michałowski, *Exercices préparatoires aux études de 'Fr. Chopin', Op. 10* (New York: Gebethner and Wolff, 1929), 2.

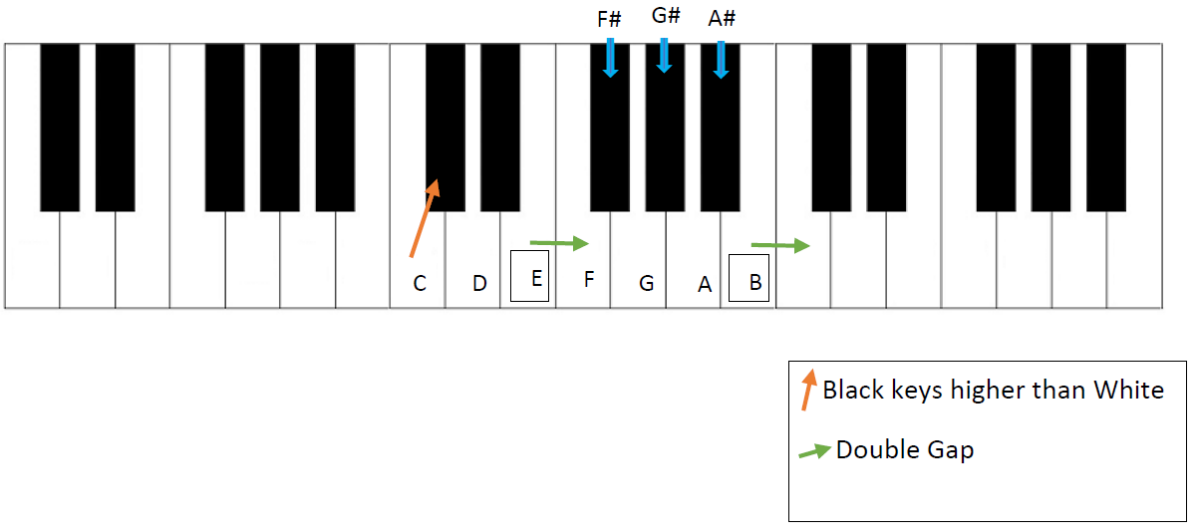



Figure 2.7: Layout of keyboard

A typical keyboard consists of black and white keys, where the black keys are placed higher than the white keys. For Chopin, B major was considered a more comfortable and natural position for the hand because of the nature of the keyboard. As a result, when one places the two shorter fingers, thumb and fifth finger, on keys E and B, the remaining longer fingers can be positioned on to the higher black keys, creating a natural arch for the hand.[94] While music composed in the key of C major is easier to read, because it only consists of white keys, the longer fingers do not receive the same kind of leverage as they do when placed on the black keys. Apart from harmonic and musical structures, the nature of the keyboard and the different length of each fingers are two other important considerations for Chopin when he composes. His solution, to fit his hands ergonomically around the keyboard, rather than relying solely on the natural capacity of his fingers, involves the 'use [of] the rest of the hand, that is the wrist, the forearm and the arm'.[95]

Taking Chopin's technical statement further, when playing a B major scale for three octaves, a pianist will have to use both his/her fingers together with the rest of the arm to move up and down the keyboard.[96] When playing a passage in unison, for instance a B major scale, because our right and left hands are inversely related, the movements required for a descending B major scale in the right hand are the same as the movements required for an ascending B major scale in the left hand. The

[94] 'Find the right position for the hand by placing your fingers on the keys, E, F#, G#, A#, B: the long fingers will occupy the high [=black] keys, and the short fingers the low [=white] keys. Place the fingers occupying the high keys all on one level and do the same for those occupying the white keys, to make the leverage relatively equal; this will curve the hand, giving it the necessary suppleness that it could not have with the fingers straight'. Eigeldinger, *Chopin Pianist and Teacher,* 29.
[95] Eigeldinger, *Chopin vu par ses élèves,* 67.
[96] See video examples 2.7a and 2.7b for a demonstration.

video clip taken at slow motion from the back captures the different elbow movements that results from playing a unison passage hands together.[97]

The Pianos: A survey through the centuries

Up to this point, I have based my discussion and demonstrated my contentions using the modern piano. One might question: 'why not demonstrate these contentions of haptics using the nineteenth-century keyboard instruments that Chopin worked with?' The reasons are as follow: Firstly, although Chopin wrote exclusively for keyboards of the mid-nineteenth century, the basic principles to approach them and their layouts do not differ from modern keyboards. Secondly, despite preferring the Pleyel keyboard, Chopin often had to compose and/or perform on other keyboards including the Erard and the Broadwood or even inferior models while away from Paris. These keyboards, like the modern pianos, also have different mechanisms and key widths etc but this did not prevent Chopin from using them. Thirdly, based on my personal observation during various field trips, I have learnt that these nineteenth-century pianos are not fixed entities. The weight of the keys for instance, depends on how the technician has regulated the instrument, and thus, existing instruments do not offer a historical standard in this area. As a consequence, using a Pleyel that has been regulated by a twenty-first century technician to demonstrate my contention will not increase the reliability of my data. The following section will document some of my contentions further.

During my research trip to the Cobbe Collection and through the generosity of the owner, Mr Alec Cobbe, I was given a chance to play, measure and study the differences between the 1848 Pleyel (which Chopin played on) and the 1845 Erard. In a separate trip to the Royal Academy Music (RAM) Museum, I was also given the opportunity to work on another collection: a square Pleyel (1843) and Erard (1840).

[97] See video examples 2.7c and 2.7d.

| | |
|---|---|
|  |  |
| Chopin Pleyel 1848 | Square Pleyel 1842 |

Figure 2.8: Photos of the Pleyel instruments[98]

Prior to my research trips, I had studied the main differences between the Pleyel and the Erard extensively from books and journal articles. In these publications, the Pleyels are often described as 'light action', 'a pianino', 'silvery-tone', 'intimate', 'varied tone' and associated with 'a drawing-room instrument'. In comparison, the Erards are described as 'heavier action', larger sound', 'powerful and brilliant tone' and an instrument 'designed for the concert stage'.[99] Kildea's most recent publication summarised the reasons why Chopin preferred the Pleyel to the Erard:

> These are the characteristics Chopin admired and exploited in his preferred Pleyel instruments: the soft attack, the hazy harmonics, the fine gradations between dynamics, the woody, burnished sound in one register, the bright, glistening tone in another, the way the hammers' hard inner layers pushed through and changed the tonal colour in louder passages. Chopin preferred these qualities to those of the more even powerful pianos of Pleyel's great competitor Erard, which he thought too forceful, too insistent, the double-escapement action inhibiting his technique.[100]

Despite the differences between the Erard and the Pleyel and despite having a preferred piano, Chopin often had to perform and compose on different pianos. In an earlier section of this chapter, I

[98] All photos are mine unless otherwise stated.

[99] Alan Walker, *Franz Liszt: The Virtuoso Years 1811-1847* (), 315. 'When Chopin played in the salons of Paris […] it was on the silvery-toned Pleyel with its light action that he gave his incomparable performances. Liszt had found it [the Pleyel] wanting […] describing it as '"a pianino". The seven octave Erard, with its heavier action and larger sound, was more congenial to him.' Robert Winter, 'Orthodoxies, Paradoxes and Contradictions: Performance Practices in Nineteenth-Century Piano Music' in *Nineteenth-Century Piano Music* edited by Larry Todd (New York: Routledge, 2004), 24-26. 'In practical terms, the Pleyel was a drawing-room instrument, while the Erard was designed for a concert stage […]. The Erard presuppose a more powerful and brilliant tone, those on the Pleyel a more intimate but varied tone.' See also article by Eigeldinger for a more detailed observation. Jean-Jacques Eigeldinger, 'Chopin and Pleyel' *Early Music* Volume 29 No. 3(2001): 388-396.

[100] Kildea, *Chopin's Piano,* 95.

described how Chopin composed on an inferior piano while in Majorca waiting for his Pleyel to arrive. On another occasion, Chopin recalled how his personal preference depended on his health conditions:

> If I am not feeling on top form, if my fingers are less than completely supple or agile, if I am not feeling strong enough to mould the keyboard to my will, to control the action of keys and hammers as I wish it, then I prefer an Erard with its limpidly bright, read-made tone. But if I feel alert, ready to make my fingers work without fatigue, then I prefer a Pleyel. The enunciation of my inmost thought and feeling is more direct, more personal. My fingers feel in more immediate contact with the hammers, which then translate precisely and faithfully the feeling I want to produce, the effect I want to obtain.[101]

From this quote, one can gather that Chopin chose specific pianos based on different circumstances. While both the Pleyel and the Erard are nineteenth-century instruments, they have different mechanisms, key lengths, striking points, string lengths etc.[102] Therefore, for Chopin, while performing on these instruments, it became inevitable that he would have to adapt to these instruments. For the purposes of my dissertation, I will be taking a closer look at two aspects of the Pleyel and the Erard - mechanism, and length and width of key - and compare these with modern pianos. The table below contains detailed measurements of keys and their mechanisms.

[101] Quoted from Eigeldinger, *Chopin: Pianist and Teacher*, 91 n. 7.

[102] For a detailed comparison, see Robert Winter, 'Striking it Rich: The Significance of Striking Points in the Evolution of the Romantic Piano' *The Journal of Musicology* Volume 6 No. 3 (1988): 267-292.

| Piano Model/ Measurements | Chopin Pleyel 1848 | Thalberg Erard 1845 | Fazioli F2781554 | Steinway D 534141 |
|---|---|---|---|---|
| Length of C |  14.2 cm |  14.4 cm |  14.9 cm |  14.9 cm |
| Length of C# |  9.7 cm |  10 cm |  10cm |  9.9 cm |
| Width of white keys |  2.25 cm (Between 2.2-2.3 cm) |  2.3 cm |  2.2 cm |  2.2 cm |
| Distance C-E |  6.95 cm (Between 6.9-7 cm) |  Exactly 7 cm |  Exactly 6.9 cm |  6.95 cm (Between 6.9-7 cm) |
| Mechanism | Single escapement | Double escapement | Double escapement | Double escapement |

Table 2.9: Technical measurements of keyboards

Perhaps what surprised me was that the key-width was almost entirely the same between all four keyboards. From the table above, the Pleyel differs greatly from the other three models due to

its single escapement mechanism. Although the key-width is generally the same, the length of the white keys on the modern piano is longer.

Key Weight and Touch

From my personal experience of playing on these historical instruments, I have gathered a few observations that are different from how these instruments are described in published literatures. While at the Cobbe collection, the 1848 Pleyel I played on was unlike descriptions of the Pleyel in modern literatures. The keys were heavy - in particular the bass was much heavier than the treble, resulting in an uneven touch. In general, these keys were less responsive than the Erard's. In contrast, due to the double escapement mechanism, both the 1840 and 1845 Erards' keys were light, and the touch was even across the entire keyboard. Although my personal observations are different from descriptions found in published literature, it is somewhat in line with the previous quote from Chopin.[103] The Erard's double escapement mechanism does not require one to use as much strength to control the keys' and hammers' action, thus it inevitably became Chopin's preferred choice when his 'fingers are less than completely supple or agile' and when he is 'not feeling strong enough'. The Pleyel's single escapement mechanism does not allow the keys to react as responsively as an Erard, hence Chopin preferred it when he is 'ready to make [his] fingers work'. Nevertheless, because of the mechanism Pleyel adopted, it allowed Chopin's fingers to 'feel in more immediate contact with the hammers'.[104]

At the Cobbe collection, while recording Chopin's Op. 35/IV on both the 1845 Erard and 1848 Pleyel, I found that on the Erard, I was able to play more effortlessly than on the Pleyel. The Pleyel required much more control over the hands, especially the left hand where the keys in the bass are heavier.[105] Nonetheless, the 1842 Pleyel at RAM's Museum was much easier to handle as the touch was more even. This action and touch of this Pleyel was indeed an exact description of the Pleyel found in published literature. In a conversation with the RAM's in-house piano technician Mr Michael Parfett (who regulates this 1842 Pleyel), he explained that the action of the keys and the weight of it are dependent on 'how the individual piano technician regulates it'.[106] Consequently, our experiences as pianists playing on historical pianos can vary depending on the decisions of the technician. My

[103] A separate study by Kenneth Mobbs on 'touchweight for minimum sound' on various keys also confirms my observation. In his collected data, the Pleyel has the heaviest touchweight for minimum sound on $C^1$ and $F^3$. The evidence of $C^1$ on Erard 1840, Erard 1841, Pleyel 1841 and 1846 is as follow: 50g, 61g, 64g and 75g. See Kenneth Mobbs, 'A Performer's Comparative Study of Touchweight, Key-Dip, Keyboard Design and Repetition in Early Grand Pianos, c. 1770 to 1850' *The Galpin Society Journal* Volume 54 (2001): 19-21, Table 1-3.
[104] Quoted from Eigeldinger, *Chopin: Pianist and Teacher*, 91 n. 7.
[105] See Historical Pianos Folder, Chopin Pleyel Op 35 IV and Thalberg Erard Op 35 IV for a comparison.
[106] Michael Parfett, interviewed by Xiaoyun Lim at London, United Kingdom, 26th June 2019.

personal experiences of playing Chopin's Op. 35 on his 1848 Pleyel, and on modern pianos, have not resulted in the use of a vastly different technique despite the technical differences in mechanism and key lengths between instruments. As a result, my dissertation utilises modern pianos to demonstrate my contentions.[107]

Wrist Technique and Legato

Prior to the development of wrist technique, keyboard technique of the seventeenth and eighteenth century relied mostly on finger action. With the exception of staccato notes, Nicolas-Joseph Hullmandel, in his 1796 *Principles of Music,* advised that 'everything is to be executed by the motion of the fingers only, keeping the hand and wrist as still and steady as possible, and holding a key on till the next is struck, this is one of the most essential rules, and should be punctually observed'.[108] While the finger-based technique worked satisfactory well for keyboard instruments of that period, the newer pianos such as the Erards came with a different mechanism and more importantly, the keys were much heavier than their predecessors. Changing taste and style of performance were also factors that called for a new approach to piano playing. Alan Davison, in an article on Liszt's Pianism, noted that

> The late 18th and early 19th century saw a widespread move away from the non-legato touch of the classical era, with several pianists independently aiming for a full pure cantabile touch. This was achieved by and largely through a close touch with the keyboard, as opposed to a non-legato and high-fingered approach characteristic of earlier schools.[109]

This trajectory of pianism is evident when we examine Czerny's recollections of his piano studies with Beethoven, remembering that Czerny later taught Liszt. During Czerny's initial lessons with Beethoven, Czerny recalled that Beethoven 'insisted on legato technique which was [also] one of the unforgettable features of his playing'.[110] It is important to note that prior to this, legato playing was uncommon among pianists. Czerny further explains:

> At that time, all other pianists considered that kind of legato unattainable, since the hammered, detached staccato technique of Mozart's time was still fashionable. (Some years later Beethoven told me that he had heard Mozart play on several occasions and

[107] I thank Professor John Irving for sharing his expertise on period pianos with me.
[108] Nicolas-Joseph Hullmandel, *Principles of Music Chiefly Calculated for the Piano Forte or Harpsichord* (London: The Author, 1795), 221.
[109] Alan Davison, 'Franz Liszt and the Development of 19th Century Pianism: A Re-Reading of the Evidence' *The Musical Times* Vol. 47 (Autumn, 2006): 35.
[110] Carl Czerny, 'Recollections from My Life' translated by Ernest Sanders *The Musical Quarterly* Vol. 42 No. 3 (July 1956), 307.

> that, since at that time the fortepiano was still in its infancy, Mozart, more accustomed to the then still prevalent *Flügel*, used a technique entirely unsuited for the fortepiano).[111]

It is a matter of conjecture as to whether Beethoven heard Mozart play the fortepiano or not. Nevertheless, it became a popular notion that through Czerny's recollections we learn that 'Mozart had a fine but choppy [*zerhackt*] way of playing and no legato'. In part, the lack of legato is due to the nature of the Viennese keyboards: light-weighted keys and an articulated clear tone. Whereas the dampers of the English keyboards create a substantial after-ring and thus produce a resonating sound quality, the Viennese keyboards used dampers that were much more efficient. These dampers 'cut off the sound immediately upon falling back on the strings', thereby creating a highly articulated sound quality.[112]

By the early 1800s, when Czerny started having lessons with Beethoven, a new emphasis on legato had begun.[113] This was facilitated by both the newly improved fortepiano and instructions given by leading pedagogues of the early nineteenth century such as those by Hummel and Clementi. The former advised in his treatise that the slur or legato is an indication 'the group of notes embraced by it must be connected together closely and smoothly without lifting up the hand'.[114] At the outset of the treatise, Hummel instructed that when playing the instrument:

> The muscles of the arms and hands must act without stiffness […] the touch, or mode of striking the key must be decisive and equal; all pressing and thumping are to be avoided; neither hands nor fingers should change their naturally bent position […so] that the tone may be more powerful, and the passages delivered with more roundness and finish.[115]

While advocating for a 'free and quiet position of the hand', Hummel's technique leans towards an expressive tone production as opposed to the highly articulated sound produced by the harpsichordist. In Clementi's treatise he similarly first warned pupils that when playing the fortepiano, 'all unnecessary motion must be avoided' and instructed them 'to keep down the first key till the second has been struck, and so on.'[116] In so doing, the pupil achieves legato by connecting one note to the other by means of finger action. In reflecting on his own performance style in 1806 to his

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[111] Ibid.
[112] Preethi De Silva, *The Fortepiano Writings of Streicher, Dieudonné, and the Schiedmayers: Two Manuals and a Notebook, Translated from the Original German, with Commentary* (Edwin Mellen Press, 2008), 241
[113] Konrad Wolff, *Masters of the Keyboard: Individual Style Elements in the Piano Music of Bach, Haydn, Mozart, Beethoven, Schubert, Chopin and Brahms* (Bloomington: Indianan University Press, 1990), 106.
[114] Johann Hummel, *A Complete Theoretical and Practical Course of Instructions on the Art of Playing the PianoForte, Commencing with the Simplest Elementary Principles and Including Every Information Requisite to the Most Finished Style of Performance* (London: T. Boosey [1828]), 65
[115] Ibid, 3-4.
[116] Muzio Clementi, *Introduction to the Art of Playing on the Pianoforte*, 15.

student Ludwig Berger, Clementi conceded that his move to 'a more melodic and noble style' was made possible by the 'perfected mechanism of English pianos, the construction of which formerly stood in the way of a cantabile and legato style of playing'.[117] In short, the legato movement was made possible by a two-way effort.

The use of the wrist was then subsequently introduced as an essential technique among nineteenth-century pianist-composers, when working with the new generation of pianos that differed remarkably from earlier keyboard instruments. Apart from Chopin, Kalkbrenner (whom Chopin complained relied *too* heavily on the wrist) and Liszt were amongst those who relied primarily on wrist technique.[118] In the same article, Alan Davison details instructions given by Liszt to the daughter of Madame Auguste Boissier:

> 'Liszt's hand is never unwieldy, for he moves it with grace according to his fancy' [...] 'he does not play with his arms or shoulders'. In a later lesson, Liszt instructed Valerie to play 'without exception, entirely with a wrist action, that is playing with 'what is called a "dead hand", without any interference by the arm; with each note he wants the hand to fall from the wrist on the key in a rebounding fashion'.[119]

In contrary to mainstream myths and caricatures of Liszt's piano playing, Davison's article concludes that the main technique of Liszt's piano playing was the use of the wrist. August Stradal, another of Liszt's students in his later life, believed that 'new theories about arm movement are being advanced nowadays, it must be stressed that, were Liszt still alive, he would eschew them, as after finger technique, his whole technique was a wrist technique'.[120] What the wrist technique entails then is a more economical way of moving across the keyboard which in turn provides greater finger legato and an expressive tone.

Using the opening bars of Chopin's Op. 58/II as an example, I have recorded two versions of this excerpt: the former played with a stiff wrist, relying solely on fingers, while the latter incorporates movement from the wrist, arm and forearm. In comparison, not only does the sound differ, the latter example is played with much more ease and with less tension in the forearm.

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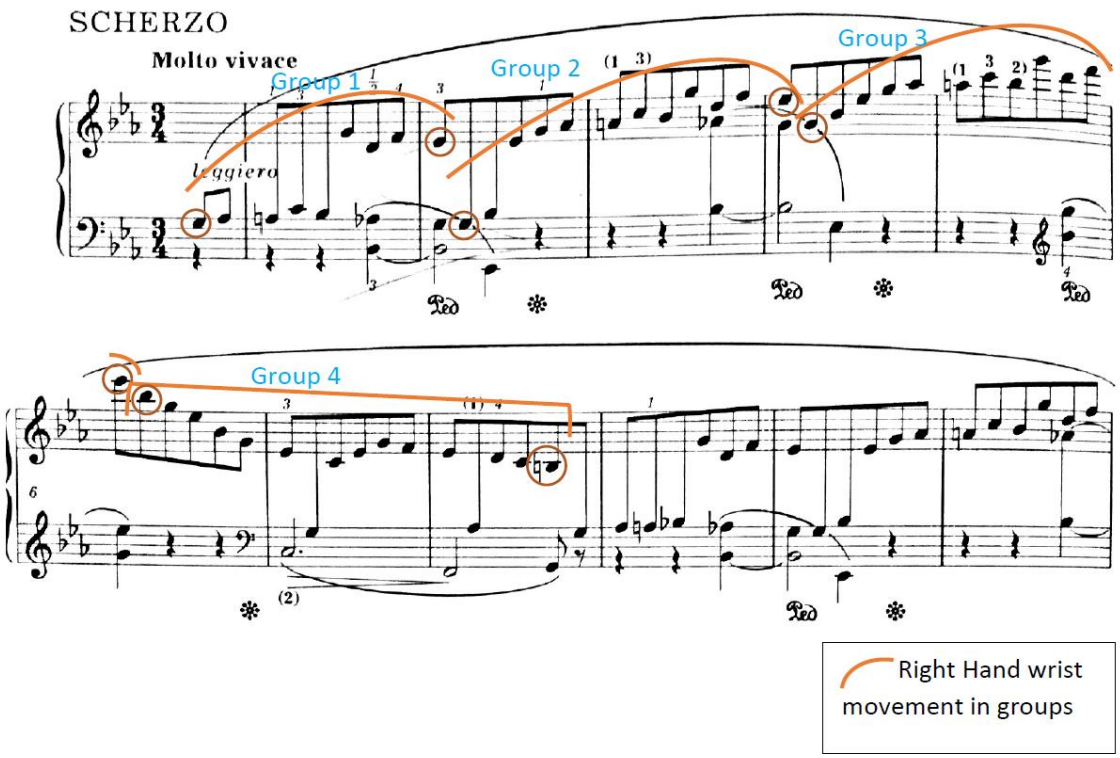
[117] Reginald R. Gerig, *Famous Pianists and Their Technique* (Bloomington and Indianapolis: Indiana University Press, 2007), 54.
[118] 'One should not play everything from the wrist, as Kalkbrenner claims'. Eigeldinger, *Chopin vu par ses élèves,* 67.
[119] Davison, 'Franz Liszt Pianism', 37.
[120] Ibid, 40.




Example 2.10 Chopin Sonata Op. 58/II Bars 1-11[121]

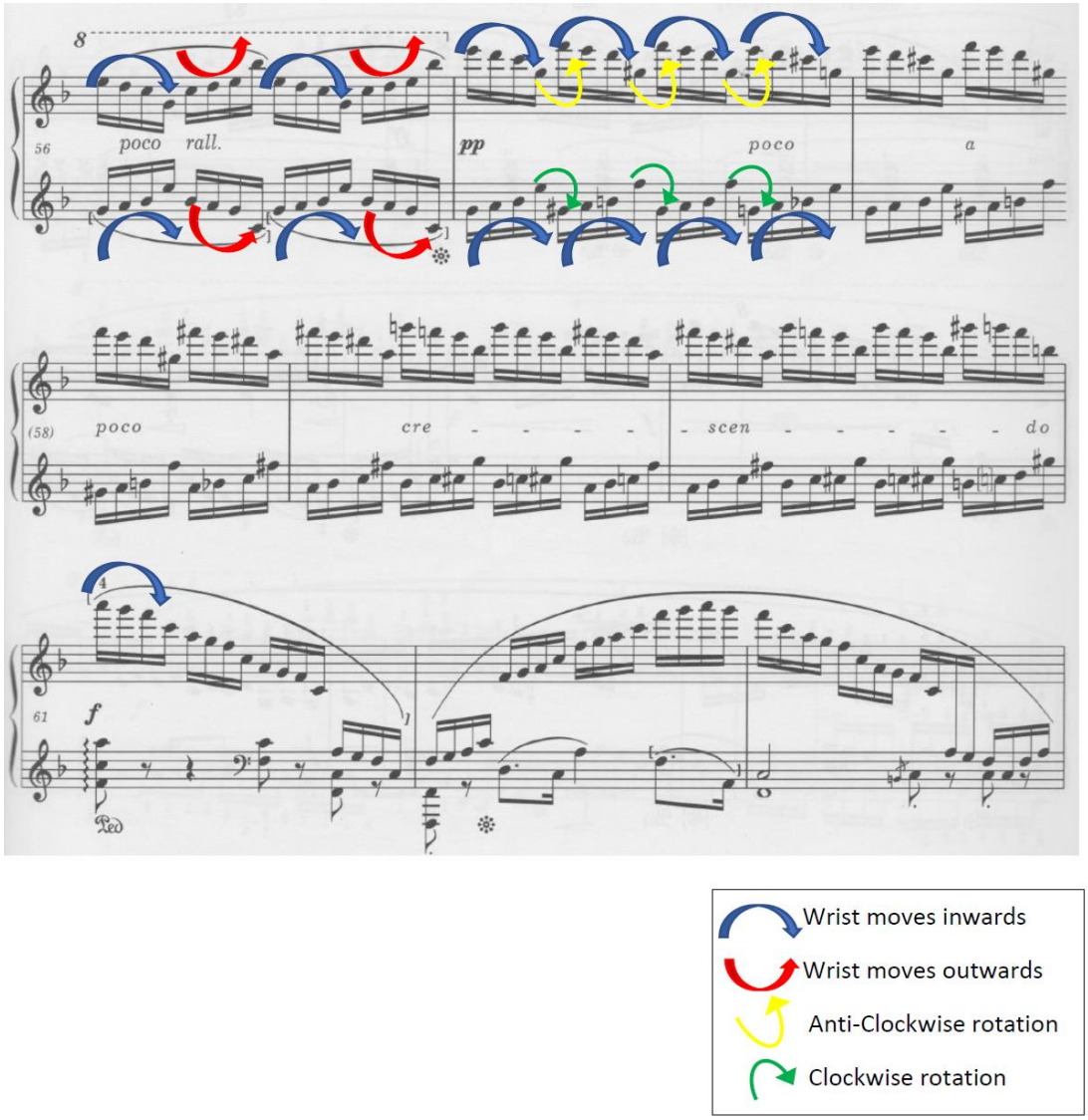
While the finger action technique also allows me to play this passage with dexterity, it is achieved with much more effort and results in a tougher and harsher sound.[122] Through the addition of the wrist technique, I was able to re-group 6 individual quavers in each bar into a broader unit. In the video 'wrist in groups', the first wrist movement allows me to fit in 9 quavers. The second and third wrist movements allow me to fit in 12 quavers respectively. The fourth wrist movement allows a bigger fitting of 16 quavers.[123] This wrist technique, essential to Chopin's pianism and compositional vocabulary, is a way for him to create pianistic brilliance due to the affordance of the keyboard and his handshape.

Tracing Chopin's Haptics

A few more examples will help to exemplify some of my contentions. Looking across Chopin's career, one can see a haptic impulse moving potentially from transition passages to thematic motives. This shift has a huge bearing on his compositions. The following section looks at some of Chopin's compositions in genres other than the sonata to illustrate his haptics at work. The first five examples

[121] Fryderyk Chopin, *Sonaty Op. 35, 58* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2010), 54.
[122] See video examples 2.10a, b and c for a demonstration.
[123] See video example 2.10d Op 58 II Bars 1-7 Wrist in Groups Top for a demonstration. Also video examples 2.10e, f and g at different angles and slower speed.

focus on circular movements that are more or less flat to the keyboard, while the last example focuses on circular movements that rise up and down from the keyboard.




Example 2.11: Chopin Etude Op. 10 No. 8 Bars 56-63[124]

Like any Chopin etude, the above example is mapped onto an A-B-A structure. Bar 61 marks the point of return to the A section. A score-based analysis might view the accompanying figurations as a motivic transformation of bar 61, since both figurations share the same primary shape, and might go on to reason that the accompanying *crescendo* is due to the return of A.

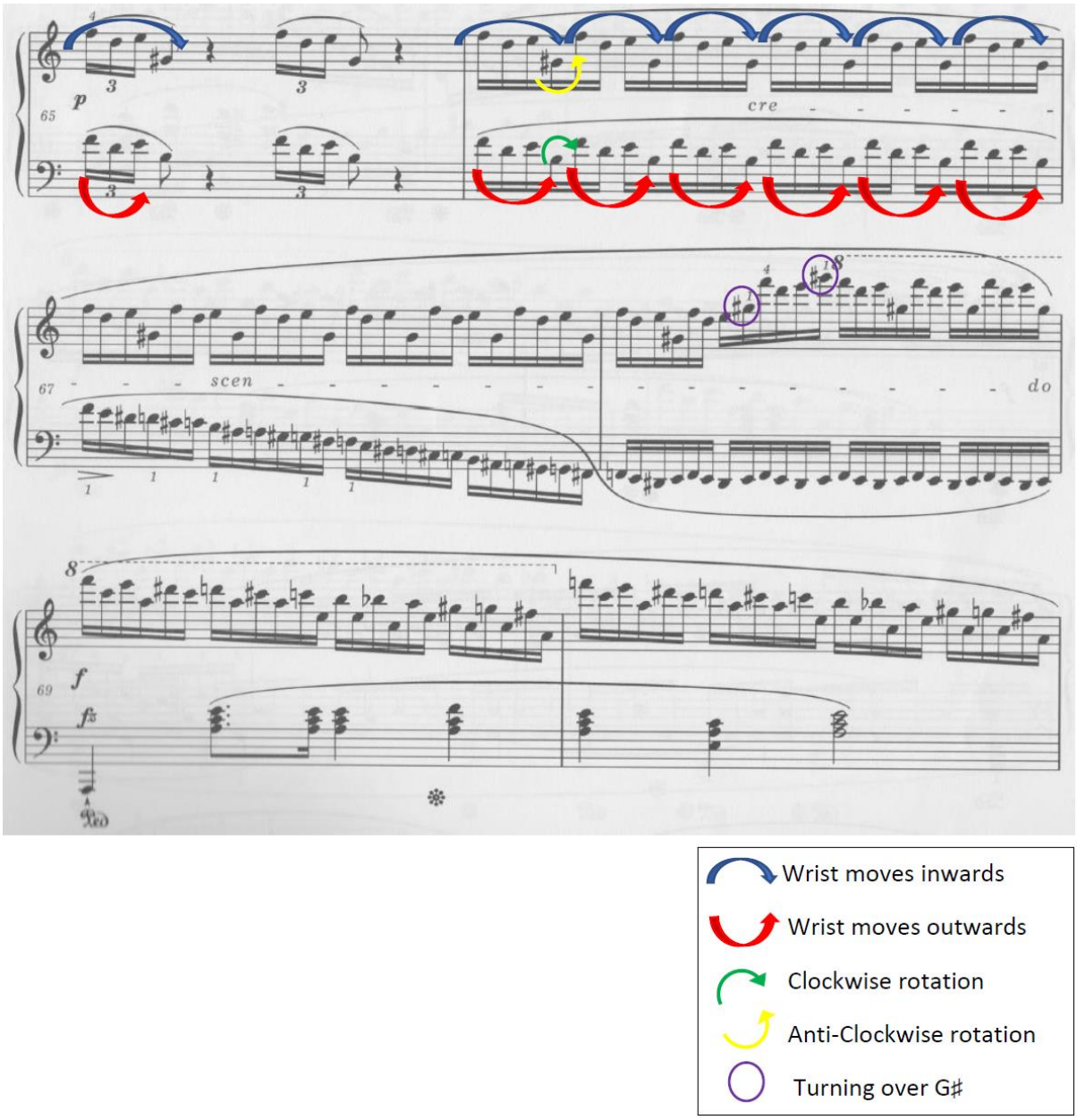
Yet, a haptic analysis could offer another explanation in which the logic of the passage leading to the return stems from the way in which the hands move at the piano. This entire section leading to

[124] Fryderyk Chopin, *Etudy* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 1999), 49.

the recapitulation, despite being harmonically complex, relies on only two hand movements: an alternating inward and an outward movement of the wrist in both hands. At bar 57, Chopin stops using the outward movement completely, relying on an inward movement for bars 57-60 for both hands. His choice here could arguably be explained as follows: a succession of inward movements results in a series of circular hand movements. The four video clips that I have recorded for this example help to illustrate the wrist movement of the hands.[125] At slow motion, from the top angle, each crotchet figuration from bar 57 onwards generates an inward movement. When played at speed, captured from the side angle, the succession of these inward movements leads to a series of circular movement. These circular movements generate a momentum to reach the top note of each figure, especially moving in an ascending direction (E-F-F#-G in bars 58-59 and F#-G-G# in bars 59-60). The hands move further away from the body to create the ascending figuration, also creating less obstruction to the production of a fuller sound required for the return. This is further supported by the performance direction *poco a poco crescendo* leading towards the *forte* Chopin marks from bars 57-61.

In the next set of etudes, in Op. 25 No. 11, Chopin also makes use of a similar haptic wrist movement when leading to the return of the A section, where both hands have to relocate to the extreme ends of the keyboard. This time, however, such haptic movements have rhythmic and harmonic implications.

[125] See video Examples 2.11a, b, c and d.




Example 2.12 Chopin Etude Op. 25 No. 11 Bars 65-70[126]

Following through the semiquaver figuration at bar 66, I observe a series of circular wrist movements in a clockwise direction. Judging from the similarity between the shape of the figuration in the previous example, in this instance it is likely that when Chopin composed a return towards the A section, his haptics guided him into decorating the $V^9$ in circular movements – movements that he was familiar with - resulting in the type of figuration shown in bar 66. Such figurations, although comfortable for the hands, distort the rhythmic flow of the passage, because instead of having 4 main beats in a bar, the haptic impulse results in 6 continuous circular movements. As a result, a hemiola in 3 groups of 4 sextuplets each is articulated physically by both hands as it cuts across the meter in 4

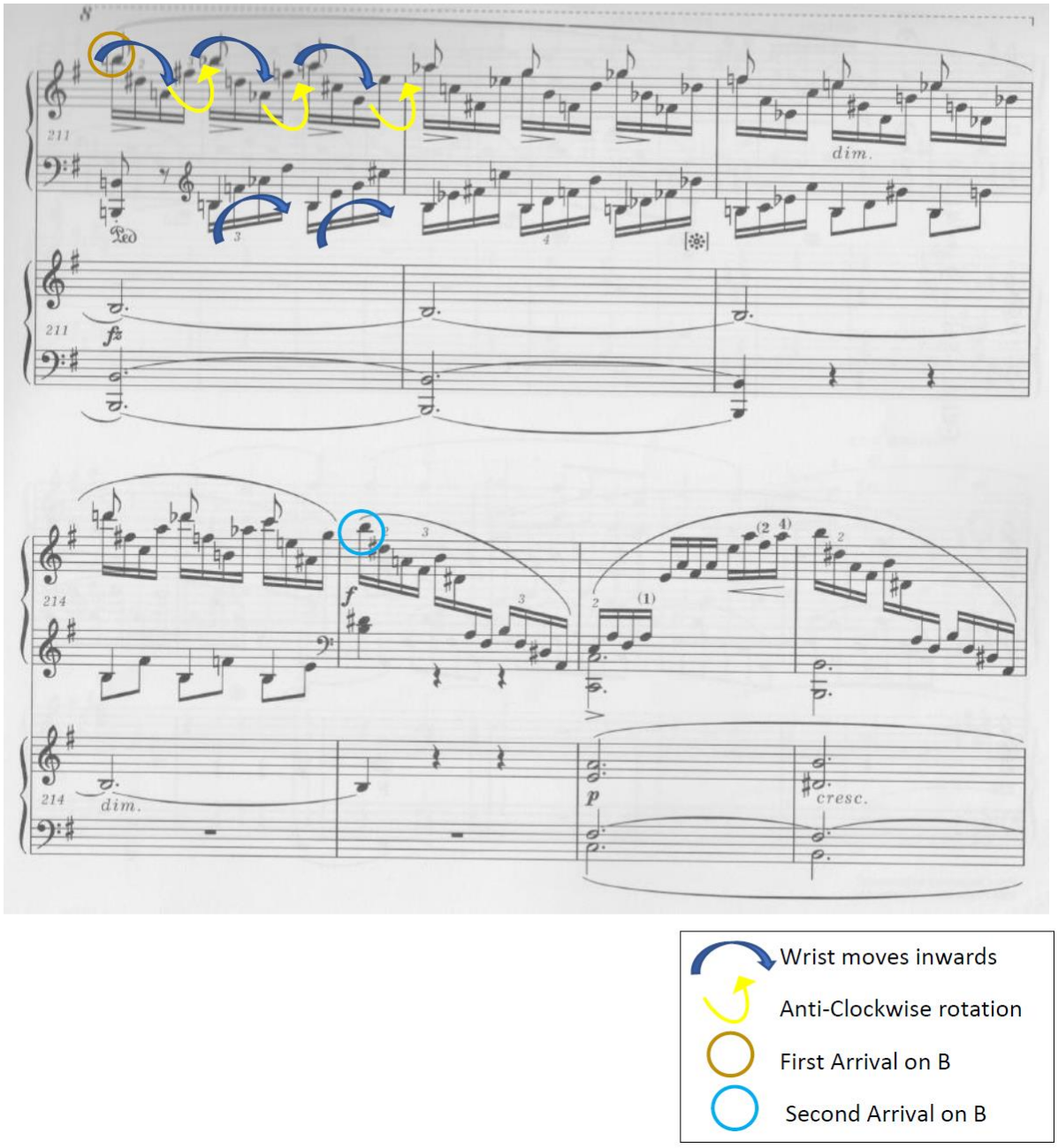
[126] Chopin, *Etudy*, 119.

crotchets per bar. Needless to say, this haptic hemiola should not be emphasised by the performer such that it would be overtly audible in a performance. By observing that a hemiola has been created from a physical process, it is evident that in this instance, Chopin's note choices are dependent on his haptic process, which has caused him to extend the $V^9$ in this particular way. A more straightforward, generic extension of this dominant harmony would have been to compose a trill or tremolo in both hands, which would not have interfered with the metric meter; this is a common technique that eighteenth-century composers often used at the end of structural sections, at cadential endings. As Chopin has selected notes that form the sequence in bar 66 of Example 2.12, he has created a hemiola that disrupts the metric meter. Therefore, it is clear that he has prioritised haptic considerations when composing these transitional bars. This process of composition incorporates haptic elements as a central component to the overall design of the figuration. The use of haptic hemiola is also incorporated in his later works, including both of his piano sonatas. In particular, in the last movement of Op. 58, the haptic hemiola is used as thematic material – in this case the hemiola should be emphasised.

Recorded at slow motion from a high angle, the video clip demonstrates this haptic impulse. When played at speed, the side angle captures the right-hand wrist in circular rotary motion.[127] Chopin continues with this haptic pattern over the next three bars in the right hand while introducing new varieties of chromatic decoration in the left hand. When moving the figuration through an ascent in bar 68, Chopin maintains this haptic pattern by allowing the thumb to go over the black key G# so that an opposite circular wrist movement can be achieved. Nonetheless, this turning of the thumb over a black key is traditionally not favoured, because when used, it forces 'the entire arm into an awkward playing position'.[128] In terms of harmony, this haptic procedure allows him to extend the $V^9$ to emphatic effect, a similar strategy to that which he employed in the first movement of the Piano Concerto Op. 11, leading to the close of the first subject.

[127] See video examples 2.12a, b, c and d.

[128] Jeanine M. Jacobson, E. L. Lancaster and Albert Mendoza, *Professional Piano Teaching, Volume 2: A Comprehensive Piano Pedagogy Textbook* (Los Angeles: Alfred Kalmus Music, 2015), 119.

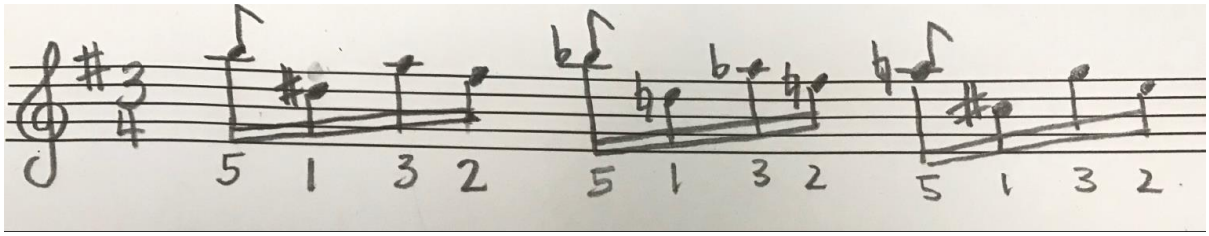



Example 2.13 Chopin Concerto Op. 11/I Bars 211-217[129]

In the connecting passages 211-214, Chopin uses the same sort of chromatically descending figuration, leading to a similar hand movement as in the previous example. The figuration here differs slightly since the last semiquaver of each group ascends from the note before. Nonetheless, when this figuration is played, it results in an inward movement of the wrist, followed by a downward movement to reach the next group in the figuration. In which case, a series of circular movements, this time capitalising on parallel sequences, is produced again.[130] What is striking here is that at bar 211 Chopin

[129] Fryderyk Chopin, *Concerto Op. 11* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2010), 27.
[130] See video examples 2.13a, b and c.

has already arrived at his harmonic goal of $V^{7,}$ which is then only developed further in bar 215. Nevertheless, these intervening bars are cleverly inserted because they allow Chopin to chromatically extend an arrival point without moving harmonically, and at the same time they transport his hands downwards. Therefore, the passage can be seen as fulfilling two goals: to support the structure by decorating the arrival chromatically over a B pedal point, and to allow the pianist to move comfortably from one passage to the next. A haptic analysis in this case therefore helps to reveal how his construction of figuration is influenced by his haptic exploration. A Schenkerian analysis, however, would have classified the entire passage as a dominant pedal point, with the figuration as relatively unimportant surface detail. To further support the contention that the chromatic decoration is a result of Chopin's handshape and haptic process, I will provide a hypothetical analysis.



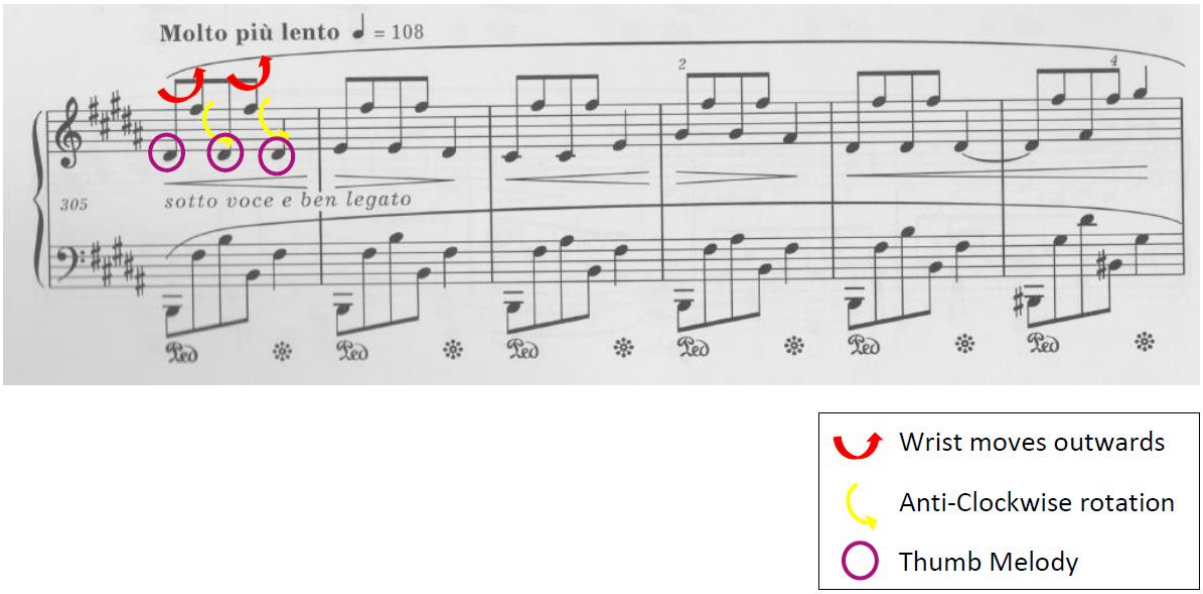

Example 2.14 Hypothetical Chopin Op. 11/1 Bar 211

In example 2.14, Chopin's chromatic figuration in the right hand has been recomposed by moving the notes played by the thumb in middle register to an octave higher. This rearrangement of notes creates a smaller handshape that would fit very comfortably for pianists with smaller hands. This version when played, does not require any wrist rotary movement. Yet, because Chopin had a very long thumb, his haptic impulse led him away from such a generic alternative. Quite possibly, Chopin also did not pick these alternatives because, when played together with the left hand, it creates different hand movements. In his original version, when the patterns are played together, it creates complementary rotary movements in both hands.

In these three transition passages (examples 2.11-13), it is evident that Chopin's sequences do not use the standard circle-of-fifths. Instead, the figurations move chromatically, and in example 2.13, in parallel motion so as to produce movements that are ergonomic while at the same time propelling the music towards harmonic goals.

In Chopin's middle-period and later compositions, his haptic process started to play a more crucial role. Conceivably, in terms of piano technique, the earlier works might have been an experimental period for Chopin: to test out how some of his haptic ideas can be integrated with his understanding of form, harmony and working out what is idiomatic for the piano. The next three

examples demonstrate how his haptic process took on a thematic role. By the time he composed his first scherzo, the rotary wrist movement, that I discussed earlier as a device for writing transition passages, allowed him to incorporate some of his thematic ideas which he used extensively in the trio section.




Example 2.15 Chopin Scherzo Op. 20 Bars 305-310[131]

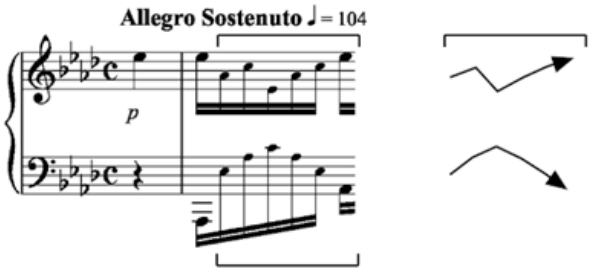
It is not known when Chopin started working on his first scherzo, since this work received no further mention in his letters or correspondences. The work came into existence some time in 1833 and was first published in 1835 by his Paris publisher, Maurice Schlesinger. He most likely worked on it sometime between 1831-1832.[132] The trio section is based on a Polish carol lullaby, *Lulajże Jezuniu*, arranged by Chopin to include his idiomatically driven haptic impulse. While maintaining the rocking nature of the lullaby and its original tune, Chopin expanded the texture by adding harmony notes that are more than an octave apart from the melodic notes. This created a rotary movement in the wrist which also helped to create the rocking sensation of the lullaby. The outer fingers of the right hand, thumb and fifth finger, are responsible for re-creating the lullaby melody in the middle register and bell-like tones respectively. The entire trio section is worked out based on this haptic impulse.

From a harmonic perspective, Chopin could have chosen the F# that is a third apart from the starting melodic note in bar 305. Perhaps he chose otherwise because of his long thumb and to create bell-like tones for a more magical atmosphere. Such a texture would have fitted nicely for his hands,

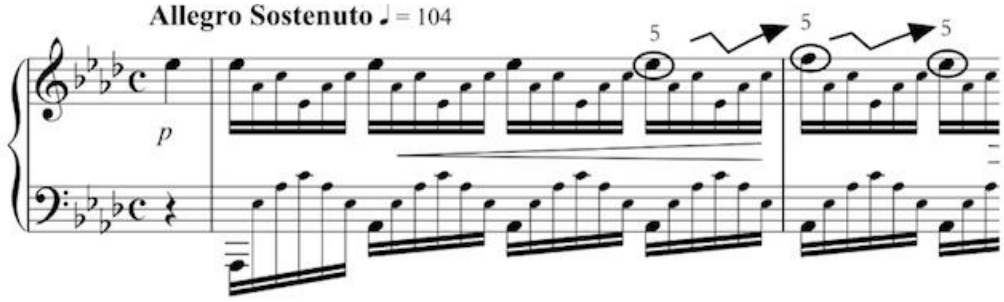
[131] Fryderyk Chopin, *Scherzos* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2010), 20.
[132] See Mieczysław Tomaszewski, http://en.chopin.nifc.pl/chopin/composition/detail/id/65 (accessed 29th June 2018).

but for smaller hands like mine, a greater rotary wrist movement is required as demonstrated in the video clips.[133]

Composed in 1836, Chopin's very first etude of Op. 25 contains a similar haptic impulse, but this time with the fifth finger in the right hand responsible for the melodic line, and the remaining fingers creating an underlying accompaniment. Irish pianist Eugene Montague, through his playing of this etude, has used his own physical experience of playing as a starting point to argue that physicality plays an integral role in its logic and musical structure.[134] Despite involving another step backwards to map my own performance experience more generally onto Chopin's haptics, the influence of Montague's approach on my own, together with those of two other pianists, David Code and John Rink, requires discussion.

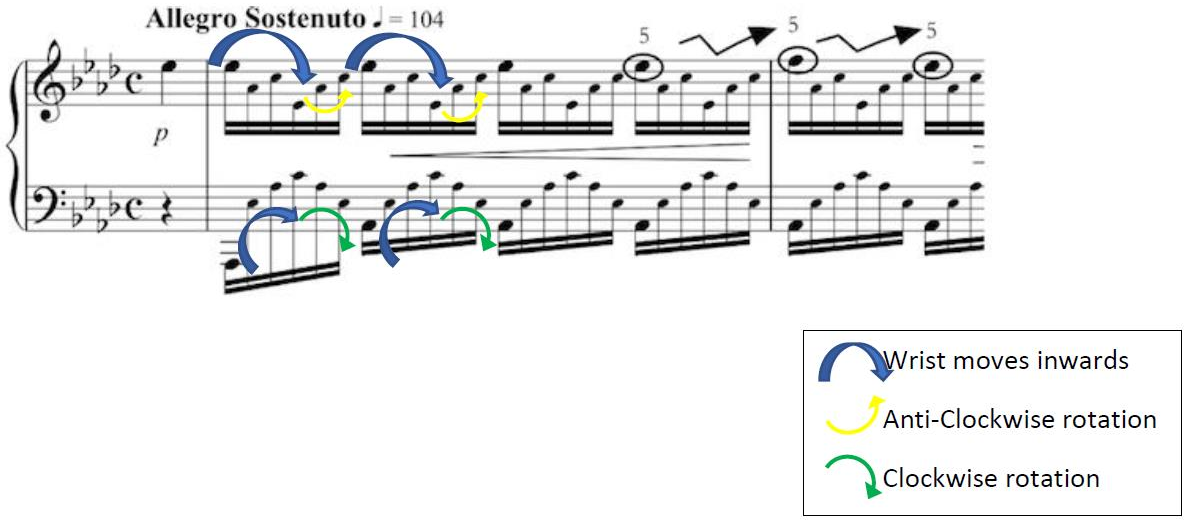



Example: 2.16 Montague Op. 25 No. 1[135]




Example: 2.17 Montague Op. 25 No. 1[136]

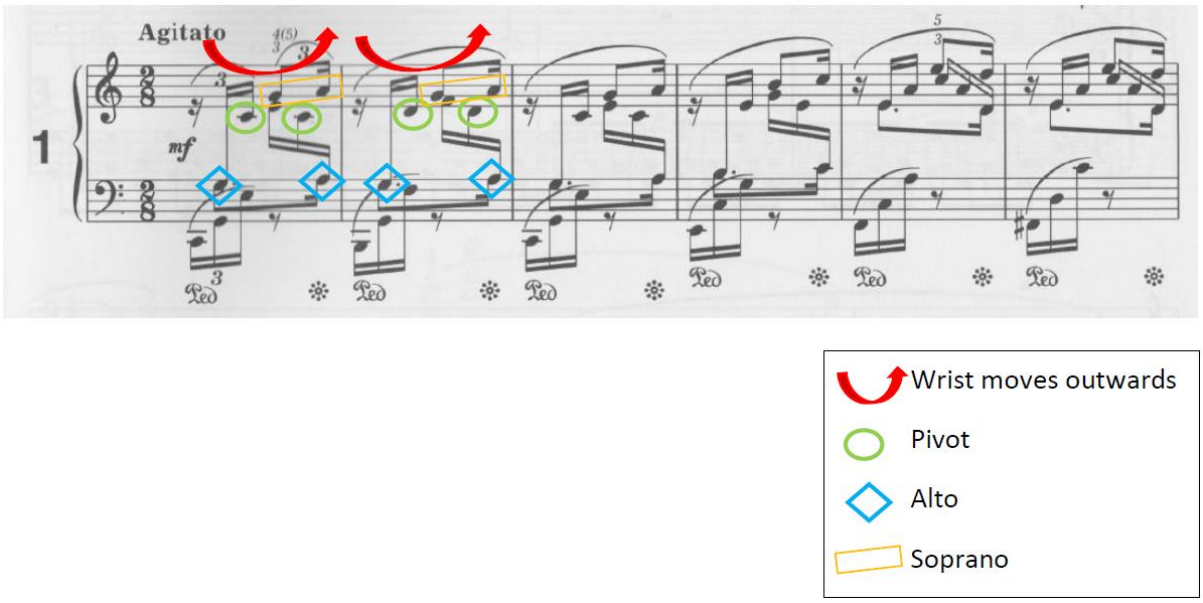
[133] See video examples 2.15a, b and c.
[134] Montague concludes that 'it is quite possible to understand the physical qualities of the gestures made by a pianist as integral part of musical structure, interacting to create meaning with element such as harmony and voice-leading'. Eugene Montague, 'Instrumental Gesture in Chopin's Etude in A-flat major, Op. 25 No. 1' *Music Theory Online: a journal of the Society for Music Theory* Vol 18 No. 4 (2012): 12.
[135] Example taken from Ibid, 4.
[136] Ibid.




Example 2.18 Haptic Analysis of Chopin Etude Op. 25 No. 1 Bars 1-2[137]

Montague identifies the opening motive as a central 'musical figure' of this etude, which consists of a typical haptic pattern that we have seen in the previous examples. He uses the arrows in example 2.16 to denote how the tonic triad can be translated to a physical gesture by the performer when played on the piano. He then observes a 'gestural extension' of the fifth finger moving from E♭-F-E♭ as a possible motivating inspiration to an ongoing melodic line over the tonic harmony created by the left hand's figuration, and also the remaining fingers in the right hand. Drawing on some of the ideas Montague has established in example 2.17, I have taken this further by using the curved arrows in example 2.18 to denote wrist movements of my own and map it to Chopin's haptics. Whereas Montague has conceived of Chopin's figurations in terms of finger extension, through Chopin's *PM* and example 2.10, I have demonstrated that Chopin's haptic procedures relied strongly on a supple wrist. Despite a difference in technical terms, in an example like this, one sees how Chopin combines some of his haptics together with thematic ideas.

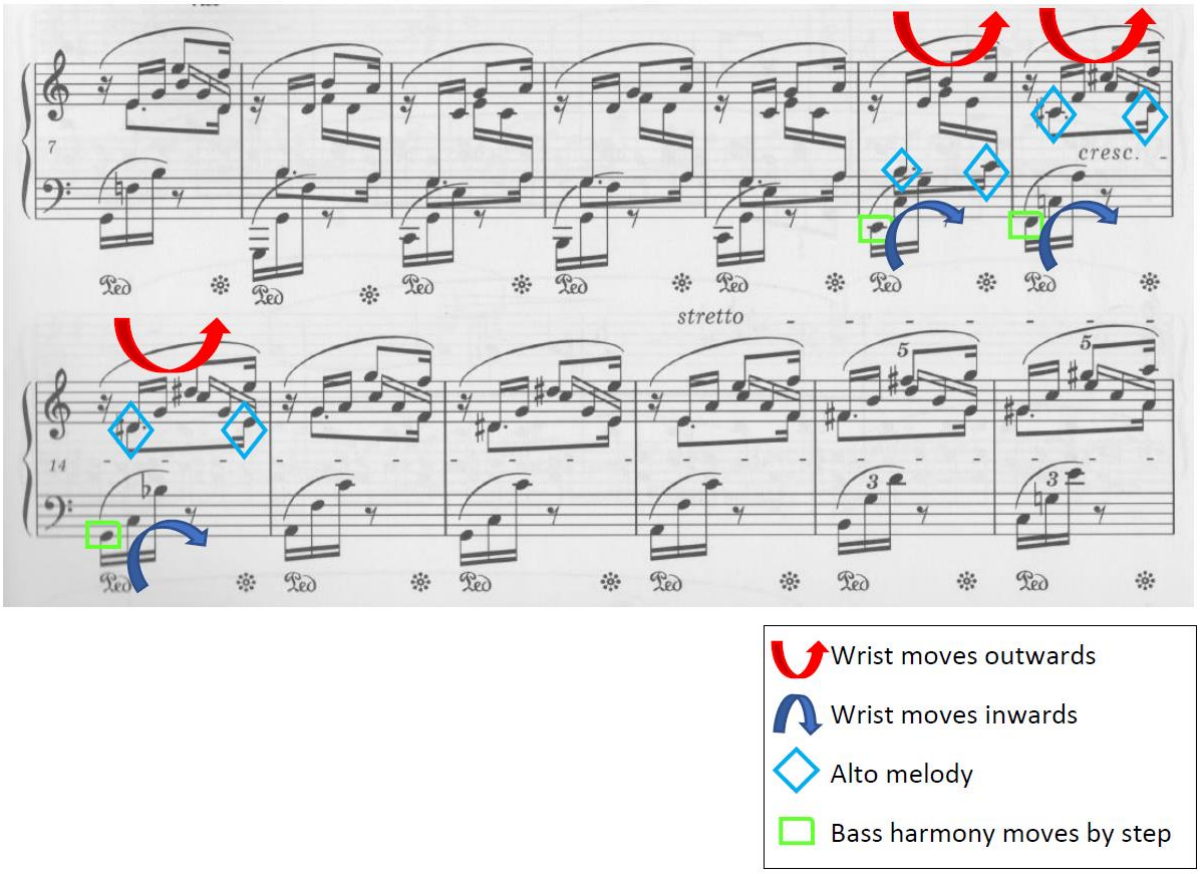
[137] Adapted from Montague's article. Ibid, 4.




Example 2.19 Chopin Prelude Op. 28 No. 1 Bars 1-5[138]

Composed between 1835 and 1839, the first prelude of Op. 28 sees Chopin reusing this haptic trope in the right hand. In this occasion, however, he also manages to create a countermelody between the alto voice (thumb) and the soprano (fifth finger), which Chopin in his *PM* mentioned as the most powerful.[139] The second finger acts as a pivot for the extension of the hand into an octave at the last semiquaver. The entire prelude is then created based on repetitions of this trope as demonstrated in the video.[140]

[138] Fryderyk Chopin, *Preludes* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2000), 13.
[139] See video example 2.19a.
[140] See video example 2.19b and c.

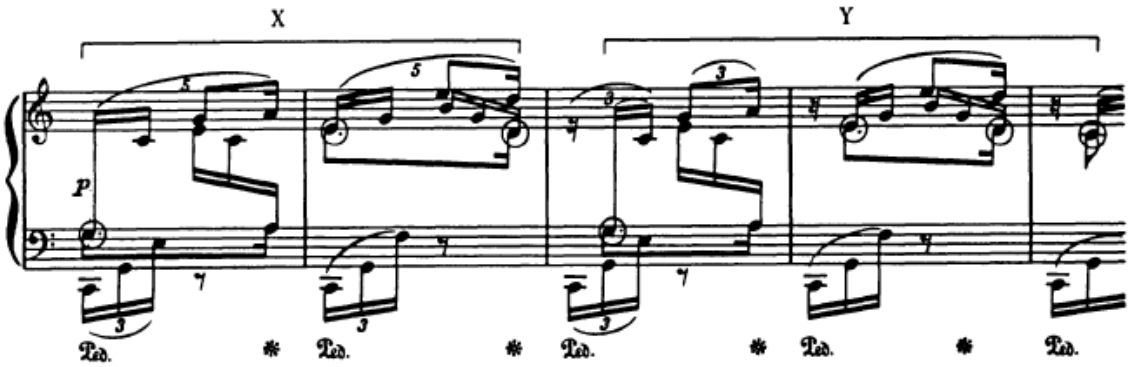



Example2.20 Chopin Prelude Op. 28 No. 1 Bars 7-19[141]

If we were to consider Chopin's haptic process in conjunction with harmonic structural considerations, we can observe that the physical movement creating the textural building block of the work has a significant impact on the construction of the piece. Looking at this section, Chopin's harmonic choices can be explained through conventions of chromatic voice-leading. Nevertheless, this does not confront the physical process of playing the piece. Through a haptic exploration of the repeated wrist movements in both hands in Example 2.20, bars 12-19, we can also argue that Chopin has managed to discover, through the physicality of improvisation, various harmonic possibilities which do not follow standard harmonic procedures. Between bars 12-19, the harmony moves through a detailed progression: $I^6$-$II_5^6$-$V^4_3$/IV-$IV^6$-$V^6_4$/IV-$IV^6$-$V^6_5$-$VI^6_5$. Nevertheless, in simplified terms, Chopin is extending the subdominant and dominant harmonies through a series of secondary chords. This is an important characteristic of his 24 Preludes - each of them is dominated by a single haptic pattern and is harmonically bold. Nonetheless, even regarding the Preludes, there are scholars who attempt to demonstrate Chopin's method of construction through purely motivic unifying principles.

[141] Chopin, *Preludes*, 13.

Eigeldinger, for instance, in his eagerness to prove Chopin's set of preludes as a unified cycle, starts off his analysis with a hypothesis: 'If the preludes are an organic whole, they must be put together according to certain structural principles: it remains to be discovered what they are and how the volume's unity is achieved over and above its diversity'.[142]




Example 2.21 Eigeldinger's Analysis of Chopin Op. 28 No. 1 Bars 20-25[143]

In his analysis, he demonstrates how a three-note motive (G-E-D) which he names X, acts as an 'omnipresent motivic cell which assures its unity through a variety of textures' for the entire set of preludes.[144] In this prelude, he names Y as an extension of X by means of an additional note. Such a motivic analysis demonstrating how Chopin might have worked out his prelude, although granting him intellectual status, does not reflect his role as a pianist. Musically, if we are to believe Eigeldinger's analysis that the above is the underlying structure, one would have to distort the phrase structure that Chopin has marked.

Chopin's Counterpoint

Chopin's contact with counterpoint techniques started early. As a student in Warsaw, he studied counterpoint with his teacher Jósef Elsner, and later, during his stay in Majorca, he pored over Bach's preludes and fugues. His understanding of counterpoint technique was translated in various ways into his compositions even as early as his first Piano Sonata, Op. 4. Nevertheless, it is only in his later works that scholars and historians begin to recognise his use of counterpoint techniques more frequently, and thus often attribute this as a trait of his mature style. This is perhaps in order to fit Chopin neatly into a historical trend that has been set by other composers. Dean Sutcliffe summarises this as a 'historical phenomenon' that 'already had quite a pedigree to it' citing Mozart, Beethoven, Schubert

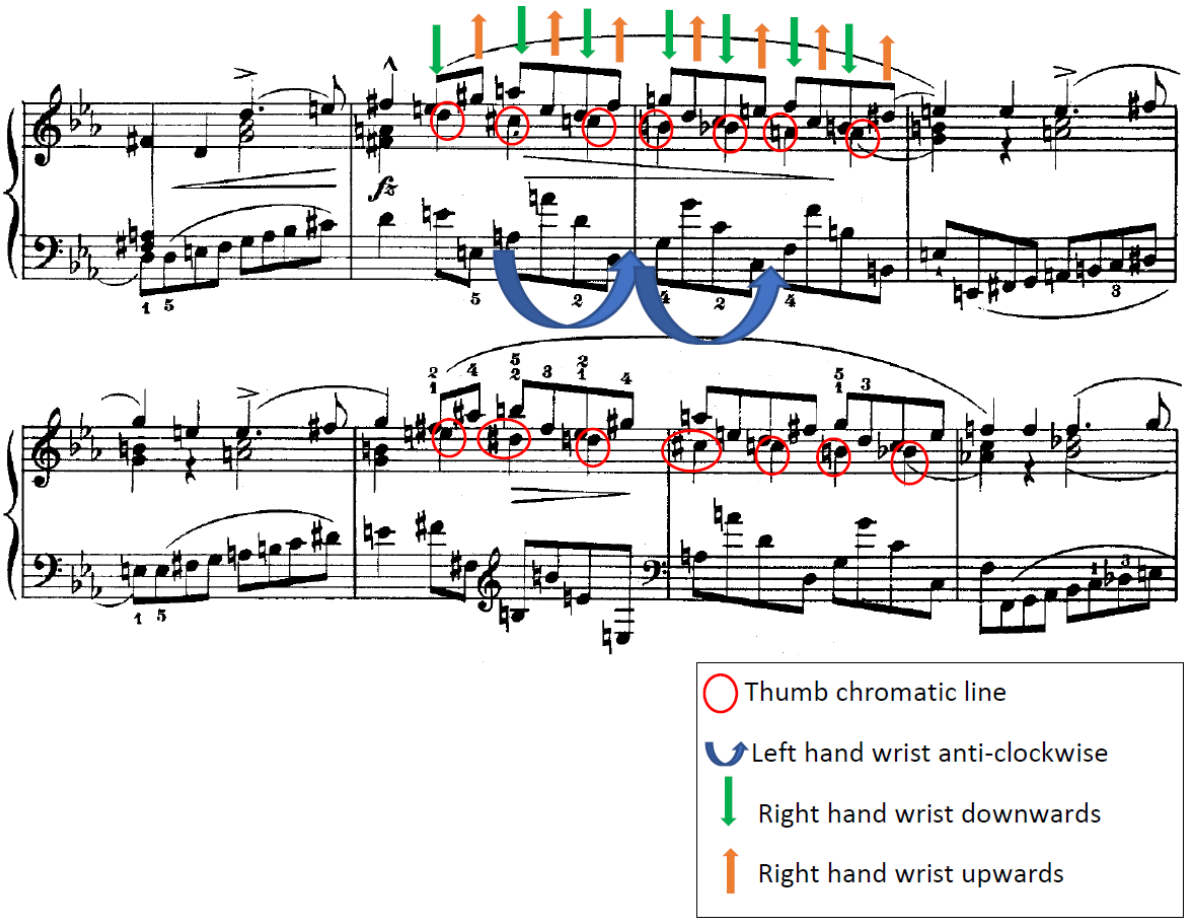
[142] Jean-Jacques Eigeldinger, 'Twenty- four Preludes Op. 28: Genre, Structure, Significance', in *Chopin Studies 1* edited by Jim Samson (Cambridge: Cambridge University Press, 1988), 180.
[143] Ibid, 182.
[144] Ibid, 181.

and Clementi as examples of introducing counterpoint techniques only in the later part of their careers.[145] This linear narrative does not hold much truth when we look for instance at Haydn's Op. 33 string quartets. Composed in his 30s, the Largo of No. 2 in Eb major contains an abundance of counterpoint technique where the inner parts played by the viola and second violin take turn to move within the texture. Stressing counterpoint technique as a late development in composers' compositions is partly due to the transcendental quality of Beethoven's late works, where fugues were predominantly the texture used and preferred. Consequently, a composer's career path only becomes valuable when seen against a Beethoven narrative. Our understanding of Chopin is not spared from this linear trajectory.

Yet, a closer investigation reveals that Chopin's delay of introducing counterpoint into his compositions could have been due to the fact that Chopin had yet to discover an ergonomic entry point. In fact, throughout his career, Chopin demonstrated ways to include a short countermelody in his transition passages or sequences as a form of harmonic interest and added texture in his compositions. Very often, these countermelodies are realised through his thumb and index finger, which is dependent on the rotary haptic pattern that we have seen in his etudes in the previous examples. The blossoming of contrapuntal technique in Chopin's later works is a manifestation of his growing confidence in manipulating ergonomic approaches. The primary drive behind Chopin's compositions is the feeling of his hands. While his studies with Elsner and a thorough analysis of Bach's scores provided the starting point, his hands ultimately provided him with the inspiration that meant that these counterpoint techniques when realised, would make logical harmonic and pianistic sense.

The potential of this haptic pattern allowed Chopin to create short countermelodies in his earlier works, which later became a method for him to fit longer countermelodic lines under one hand. This enabled him to write his counterpoint within the ergonomic capacity of his hand. From a pianistic perspective, this sort of haptic counterpoint, rather than imitative counterpoint, is unique to Chopin and his pianism. To demonstrate this point further, I have selected a few passages across Chopin's compositional career to trace how his counterpoint techniques have matured over the years. The first four examples demonstrate how his haptics allow an extra melodic line to be fitted in (but taking on a harmonic role) while the next four examples, taken from the later part of his oeuvre, demonstrate how an extra melodic line can be used as a counterpoint.

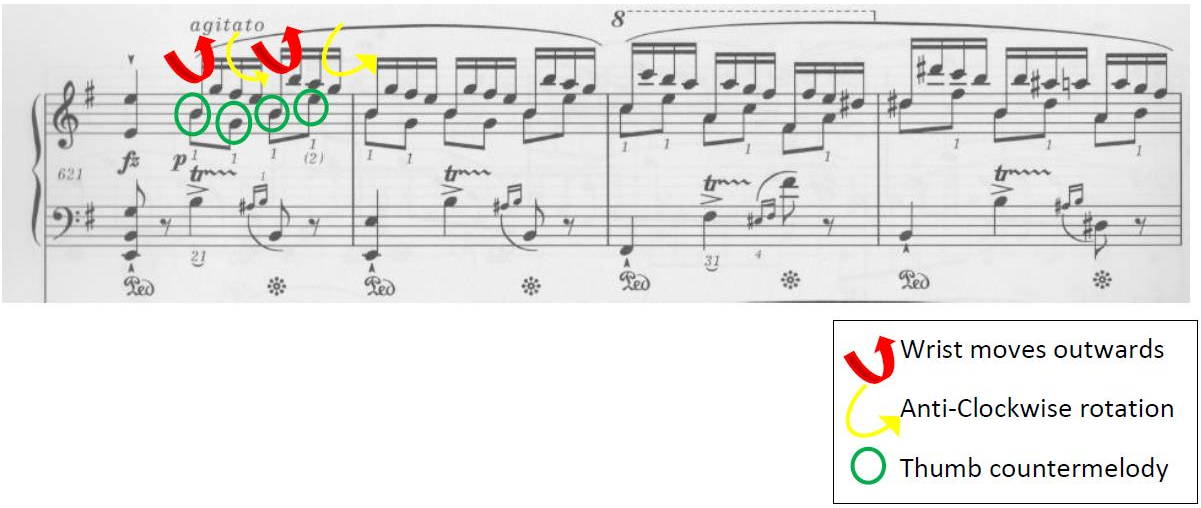
[145] 'Thus Chopin's turning to contrapuntal procedure and principle ready had quite a pedigree behind it. It is also significant that in almost all cases this technical reflectiveness comes at a late stage of a composer's career and may in fact help to define a late style.' For a detailed summary, see Dean Sutcliffe, 'Chopin's Counterpoint: The Largo from the Cello Sonata, Opus 65' *The Musical Quarterly* Vol. 83, No. 1 (Spring, 1999), 115-116




Example 2.22 Chopin Sonata No. 1 Op. 4/IV Bars 342-349[146]

Chopin's first attempt at a piano sonata was during his years as a student in Warsaw under the tutelage of Elsner. In the last movement, when writing a sequence, Chopin used the longer fingers to create a melodic line, leaving him with the thumb as an extra finger for the underlying chromatic line. Without this chromatic line, the melodic line, when played, involves a circular wrist movement that we have seen earlier in the previous examples.[147] Presumably, this haptic impulse has given Chopin the idea of adding a chromatic line for harmonic reasons. With the addition of the chromatic line, the circular wrist movement now alters to a downwards, followed by an upward movement.

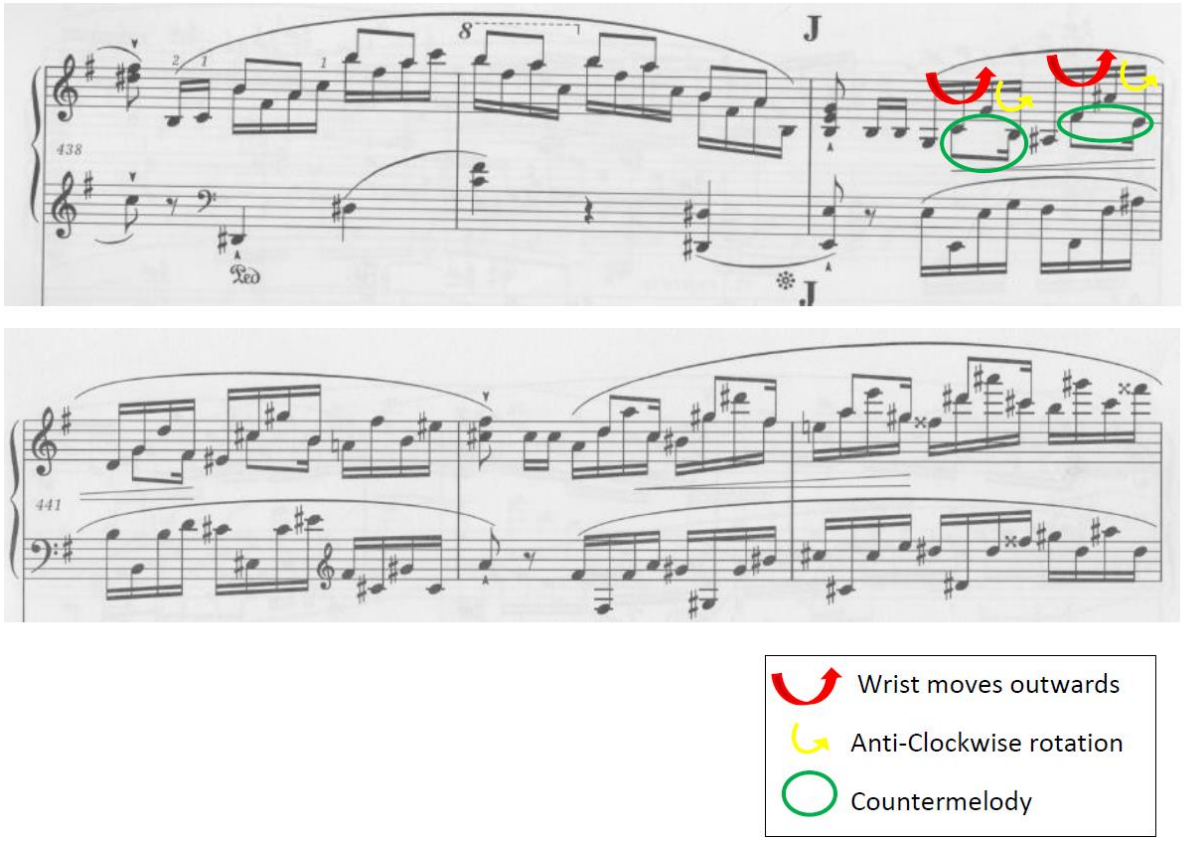
[146] Frédéric Chopin, *Complete Works for the Piano Volume 9* edited by Carl Mikuli (New York: G. Schirmer, 1895), 780. An Ekier edition of Op. 4 is not available.
[147] See music examples 2.5, 2.10-2.17.




Example 2.23 Chopin Piano Concerto Op. 11/I Bars 621-624[148]

The Coda of the first movement of Chopin's E minor concerto retains a similar haptic impulse to the previous examples. In this passage, he most likely uses only the thumb to create a countermelody. The editor has suggested the second index finger at some instances possibly for pianists with shorter thumb. That is also the fingering that I have used. This passage has been recorded in slow motion in two different video clips from a high angle: firstly, with the right hand playing only the alto voice, using the thumb and index finger to demonstrate the countermelody, and secondly, the right hand playing the figuration as written, to demonstrate how the rotary movement functions even with the presence of an extra melodic line.[149] The last three video examples are then recorded with both hands in action at different angles and speeds.[150] Presumably, as in the previous example, the countermelody could have been motivated by Chopin's haptic impulse created in part by his long thumb.

[148] Chopin, *Concerto Op. 11*, 62.
[149] See video Examples 2.23a-b.
[150] See video Examples 2.23c-e.

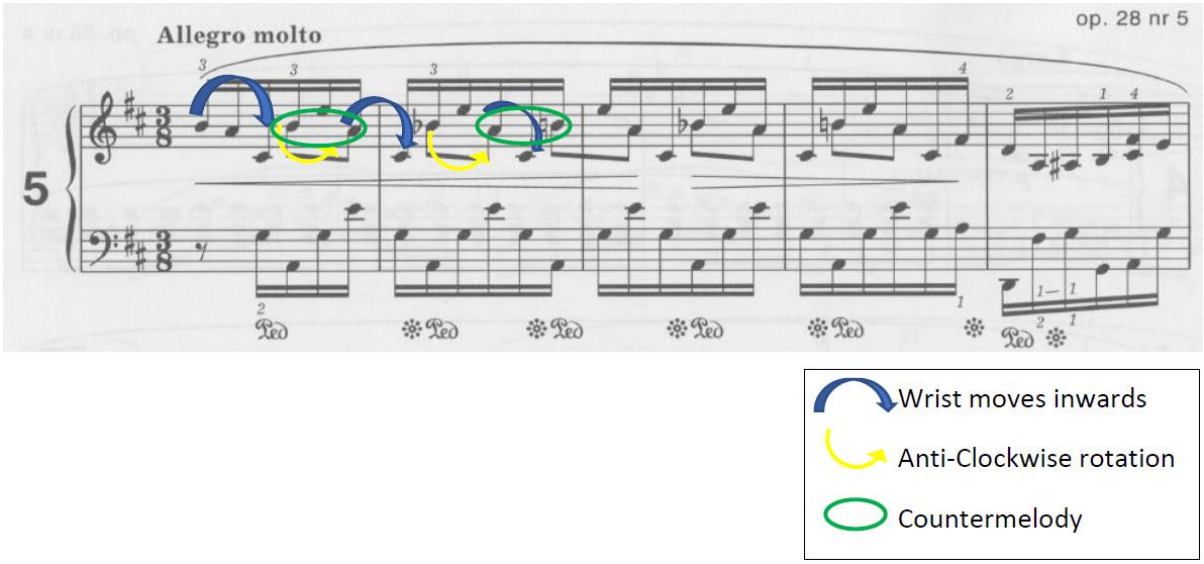



Example 2.24 Chopin Piano Concerto Op. 11/1 Bars 438-443[151]

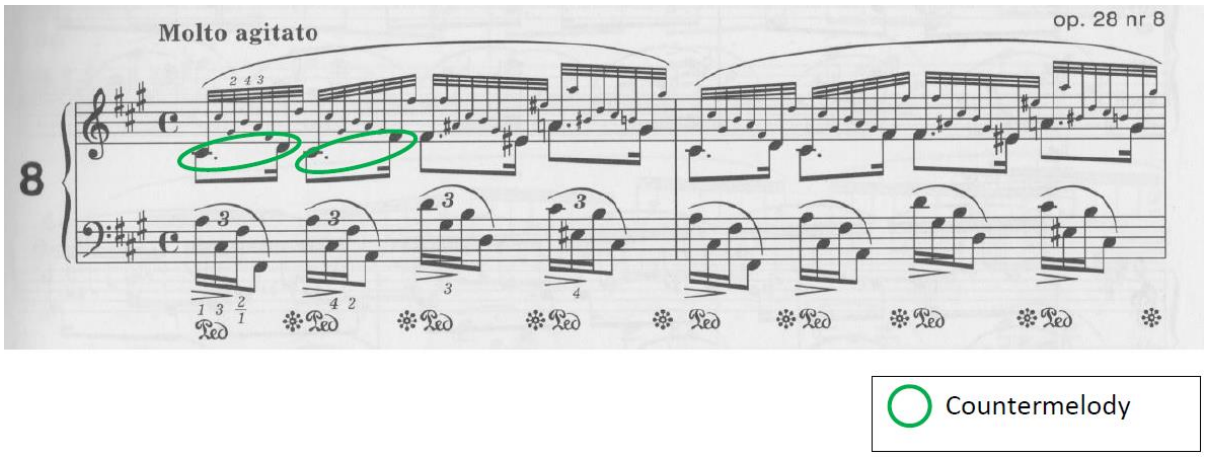
Earlier in the development section of the first movement, Chopin, perhaps aware of the potential of the rotary movement, composed his sequences in a manner that allowed him to fit in an extra melodic line amidst the sixteenth notes pattern. In order to inject melodic quality into his sequences, he carefully beamed the second and fourth sixteenth notes of each group in a different direction, so as to give emphasis and also an indication of legato touch. Four video clips have been recorded to illustrate the movements of the wrists. From a high angle, the video at tempo captures the wrists of both hands moving in contrary motion: right hand at anti-clockwise, while left hand at clockwise. This idea of an extra melodic line could have existed for a more practical reason: using the longer fingers as pivots to get around to the next group of figurations, which can be observed in the slow-motion video. From the side angle, the video illustrates how the right-hand wrist moves up, which helps to create the rotary wrist movement that is typical of Chopin's haptic pattern.[152]

A device that Chopin favours when writing his sequences, which he later uses again in two of his preludes, is shown in the examples below.

[151] Chopin, *Concerto Op. 11*, 62.
[152] See video examples 2.24a, b, c and d.



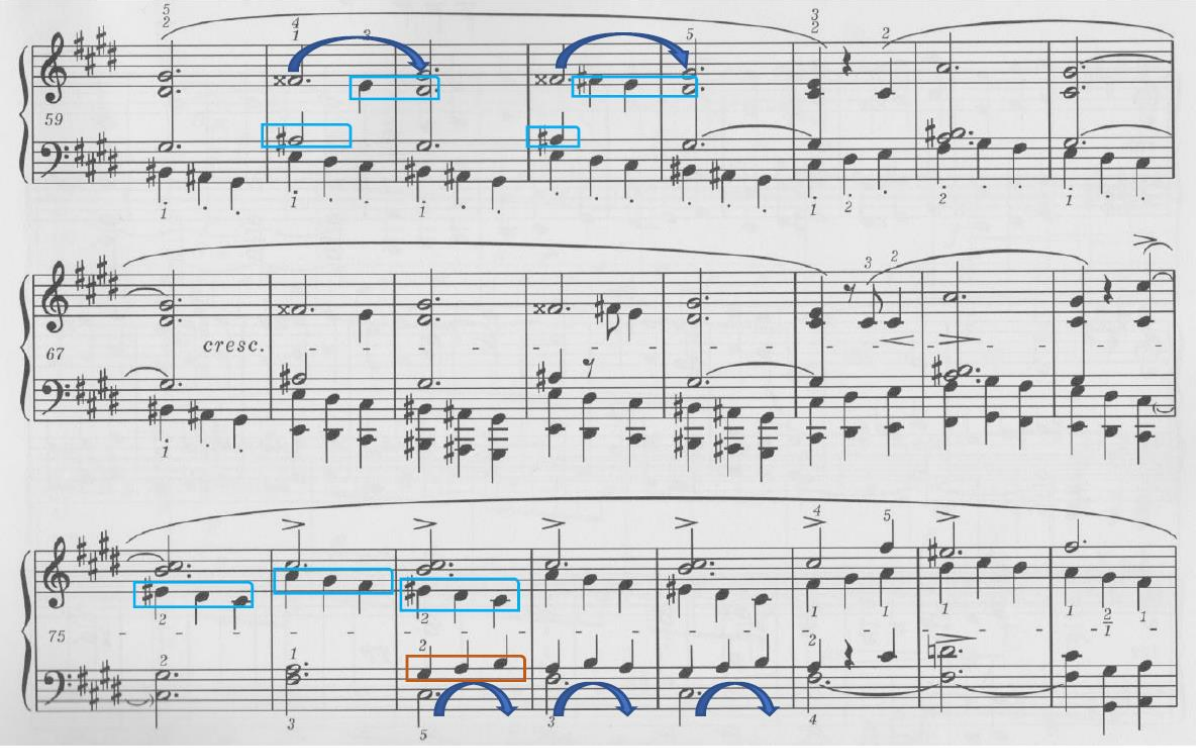

Example 2.25 Chopin Prelude Op. 28 No. 5 Bars 1-4[153]




Example 2.26 Chopin Prelude Op. 28 No. 8 Bars 1-2[154]

In both preludes, it is evident that Chopin reuses a similar type of passagework as seen in the previous example. While in prelude No. 6, the haptic pattern is only used as an introduction to the prelude, in prelude No. 8, it becomes an essential pattern that occurs throughout the entire prelude. This time, the thumb becomes responsible for creating a separate melody with the decorative figuration played by the remaining fingers. However, in this case it is not used to provide a contrapuntal line, but as a harmonic accompanimental figure for the melody played by the thumb. In these examples, one can see how Chopin has evolved his approach to counterpoint by following his haptic impulse.

[153] Chopin, *Preludes,* 18.
[154] Ibid, 21.

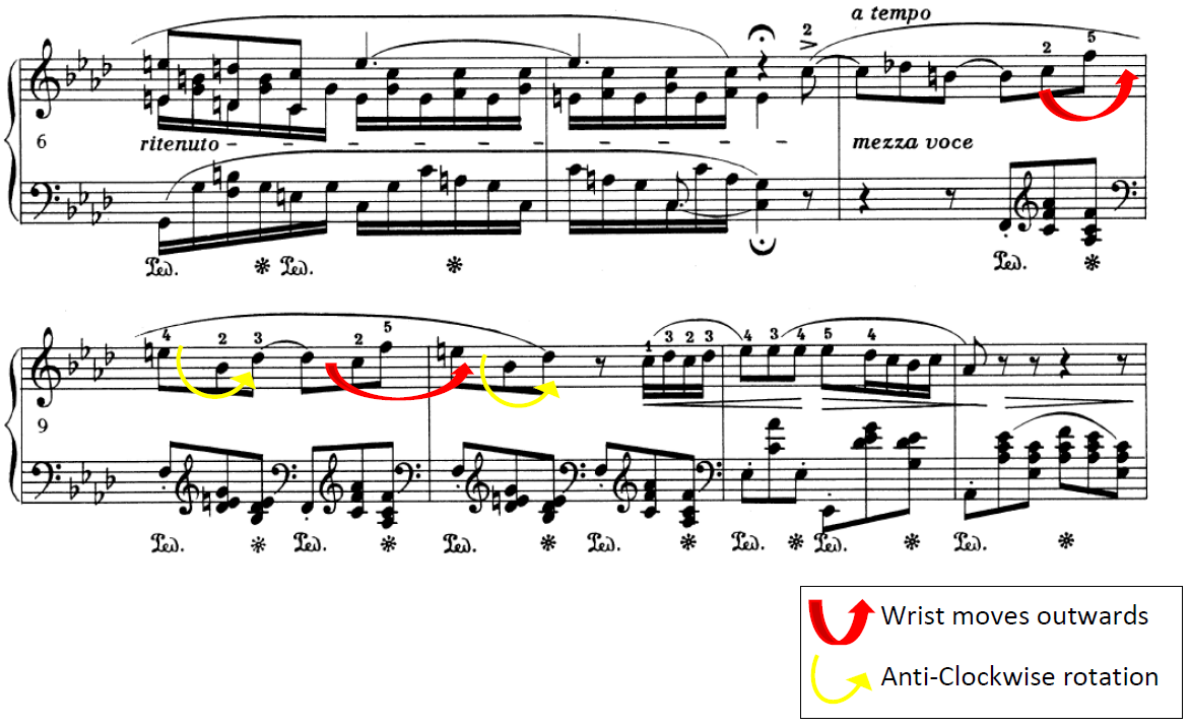



Example 2.27 Chopin Scherzo Op. 39 Bars 59-82[155]

Composed in 1839, Chopin's development of the theme of his third scherzo demonstrates an instance of a haptic counterpoint. In example 2.27, the four-bar phrase, from bars 59-62, the right hand contains two voices against a separate melody in the bass. The video at slow motion demonstrates how the right-hand wrist, together with the extension of the thumb, allows an extra alto line to be built in while the fourth and fifth fingers maintain the soprano line.[156] These three lines of counterpoint develop into four when the tenor voice joins in from bar 77 onwards. To demonstrate the complexity of counterpoint in this passage clearly, I have recorded the left hand separately.[157] When both hands are played together, one can observe that a haptic counterpoint has been created.[158] By understanding the full capability of each hand and finger, and capitalising on his long and flexible thumb, Chopin has thus developed four lines of contrapuntal textures.

[155] Chopin, *Scherza*, 55.
[156] See video Example 2.27a-b.
[157] See video Example 2.27c. The next two Examples 2.25d-e demonstrate bars 57-98 when played together.
[158] See video Example 2.27f.

In Op. 52, the opening theme of the right hand retains a similar haptic pattern, in which Chopin relies only on the longer fingers to create the circular wrist movement.[159]




Example 2.28 Chopin Ballade Op. 52 Bars 6-12[160]

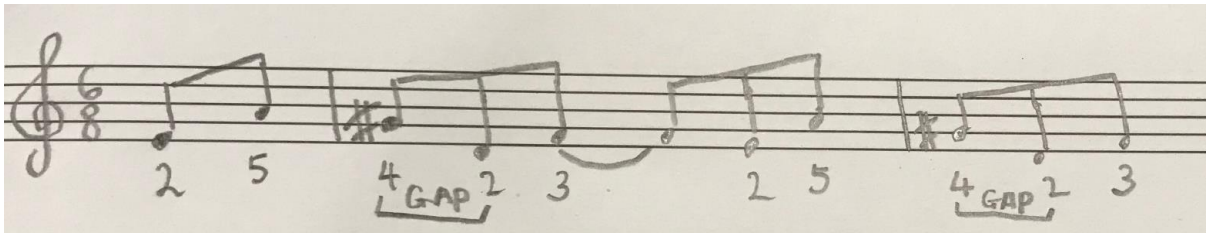
In most cases, Chopin rarely specified fingerings for his compositions unless the scores themselves had been used to teach his pupils. Despite this absence of specified fingerings, Chopin left a clear methodology for fingering piano music in his PM, as discussed earlier.[161] Following the guidelines of the PM enables us to extrapolate fingerings for specific passages that embody Chopin's approach to the keyboard as expressed therein. Indeed, several editions of Chopin's music use approaches that match the methodology of the PM, including those edited by Paderewski, Ekier and Cortot. My haptic analysis of the Ballade Op. 52 is in this case predicated on the acceptance of Paderewski's fingering as following Chopin's philosophy as laid out in the PM. This set of fingerings fits under the natural shape of the hand, avoiding the use of the thumb so that the wrist is free to move. In other editions, including those by Ekier and Cortot, similar fingerings have been adopted where the

[159] See video Example 2.26a-b

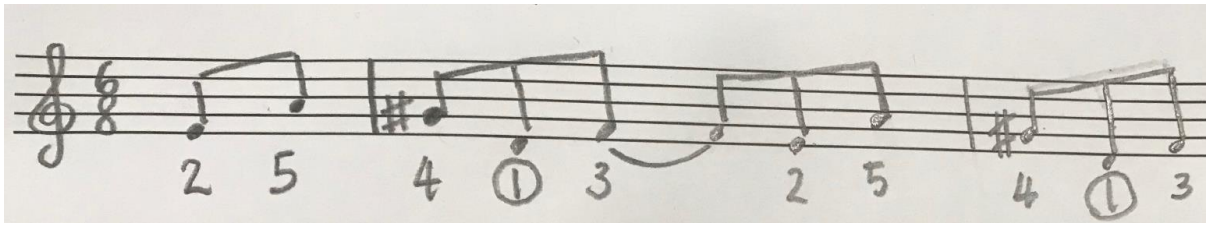
[160] Music examples for Chopin's Op. 52 are taken from Fryderyk Chopin, *Chopin Complete Works Volume III Ballades* edited by Ignacy Jan Paderewski (Warsaw: Instytut Fryderyka Chopina, 1950), 41-56.

[161] See chapter 2 pages 29-31 for a discussion of Chopin's PM and page 34 for a detailed discussion of his preferred key and how it fits well with the natural handshape of the human body.

right hand thumb has been omitted in the opening thematic passage.[162] Interestingly, Chopin's choice of F minor as a key allows him to retain the haptic pattern so often seen in his previous work; if this passage had been composed in A minor, for example, a different handshape would have resulted:



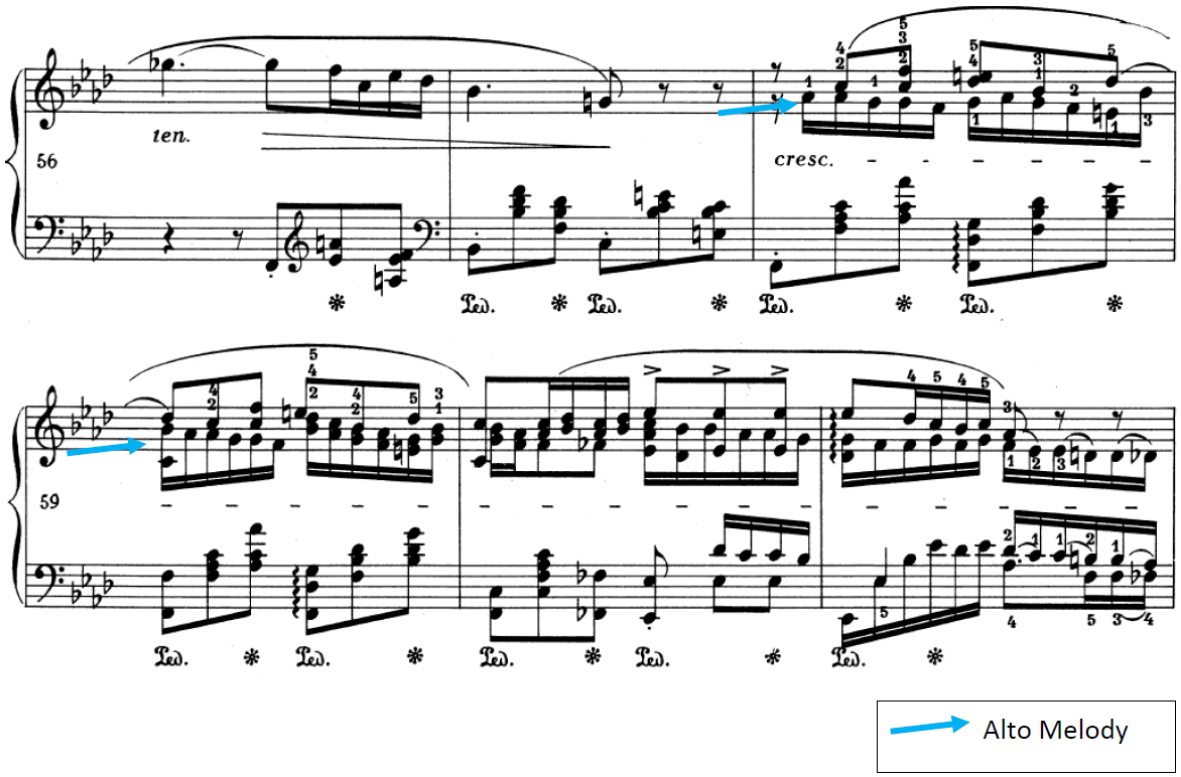

Example 2.29 Hypothetical Chopin Op. 52 Bars 8-10




Example 2.30 Hypothetical Chopin Op. 52 Bars 8-10

Two videos help to illustrate this point further: although it remains possible to perform the theme in A minor using the exact same fingering, the lack of black keys in A minor between G and ♯-D results in a greater rotary wrist movement, and therefore does not create the same haptic pattern as found in F minor.[163] In order to play the theme with a similar haptic movement as F minor, one would be forced to use the thumb.[164] In so doing, that would have prevented Chopin from developing the theme further later in the ballade as it is the thumb that is responsible for the contrapuntal texture. Therefore, to an extent, Chopin's haptic procedures have influenced his choice of keys, and it thus becomes essential when analysing his works, one needs to consider his haptics alongside other conventional composition techniques.

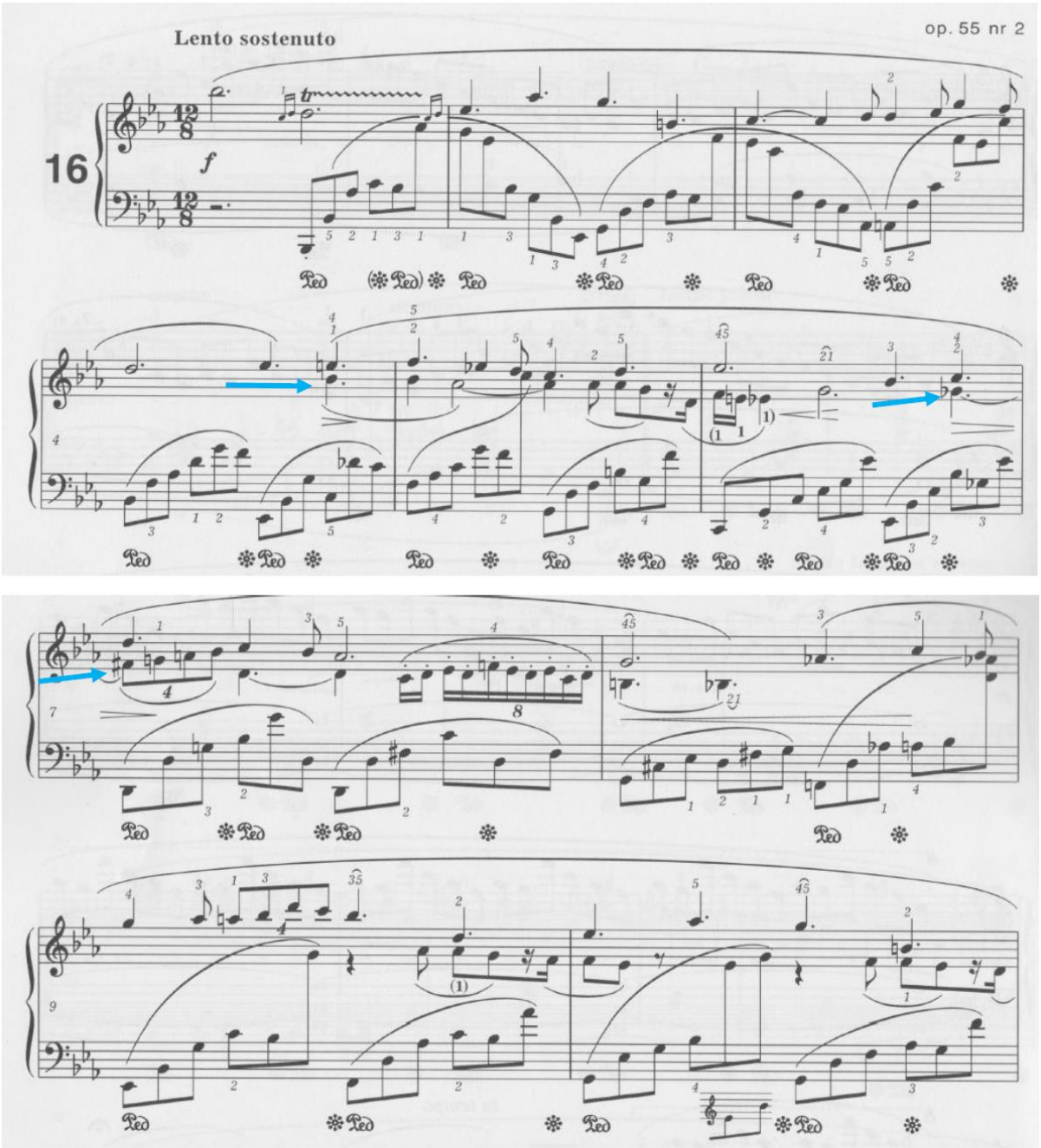
[162] Fryderyk Chopin, *Ballady Op. 23, 38, 47, 52* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2010), 48. Fryderyk Chopin, *Ballades Op. 23, 38, 47, 52* edited by Alfred Cortot (Paris: Éditions Salabert, 1929), 50.
[163] See video example 2.29a.
[164] See video example 2.30a.




Example 2.31 Chopin Ballade Op. 52 Bars 56-61[165]

Having not used the thumb in the opening motive, at bar 56 when Chopin starts developing the theme, the thumb starts to play a crucial role. Captured from a high angle, the video at slow motion with the right-hand demonstrates how the thumb and index fingers together with the wrist help to create a new alto melody against the opening motive.[166] Arguably, this could have been discovered during the compositional process as Chopin improvised around the opening motive.

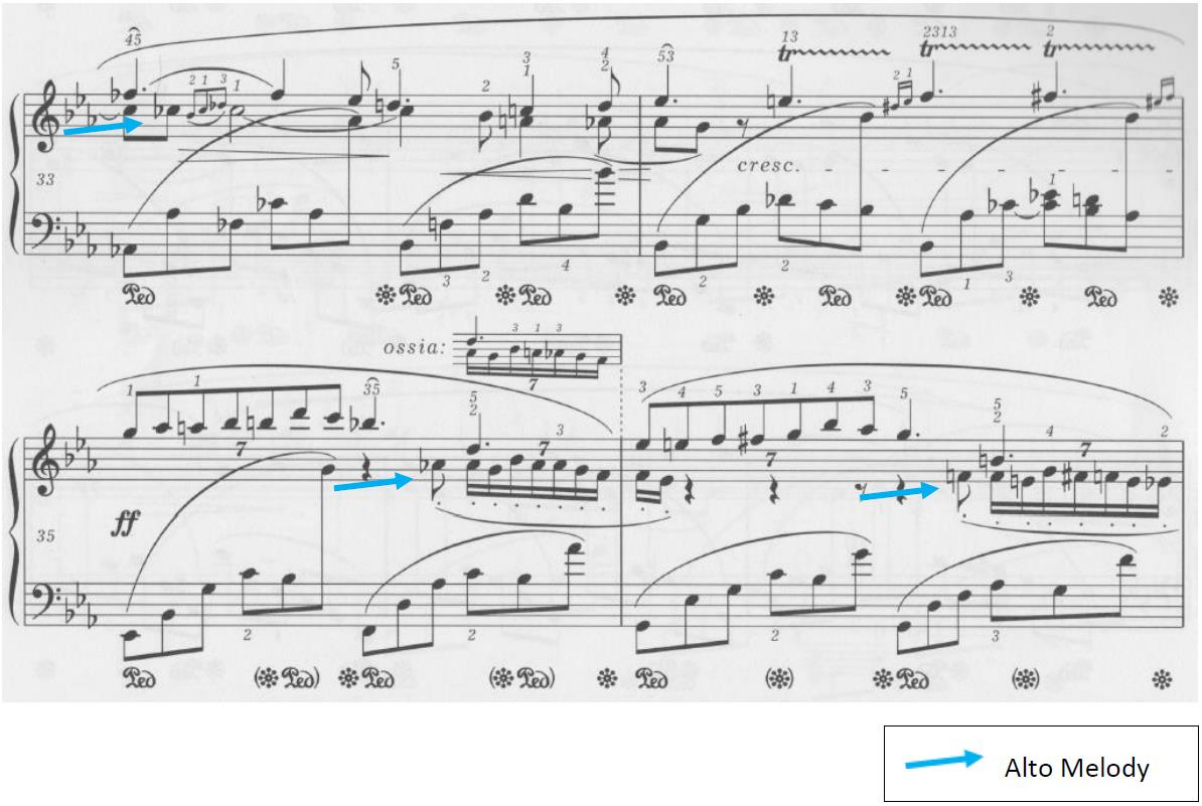
[165] Chopin, *Chopin Volume III Ballades*, 44.
[166] See video examples 2.31a and b.




Example 2.32 Chopin Nocturne Op. 55/2 Bars 1-10[167]

Composed during the same period as Op. 52, the development of this nocturne theme retains a similar device, where thumb and index fingers are responsible for allowing an extra alto voice to be placed underneath the top line. At the climax, the alto voice takes on a melodic role, as though it were replying to the soprano voice, with Chopin writing both parts in the same hand.

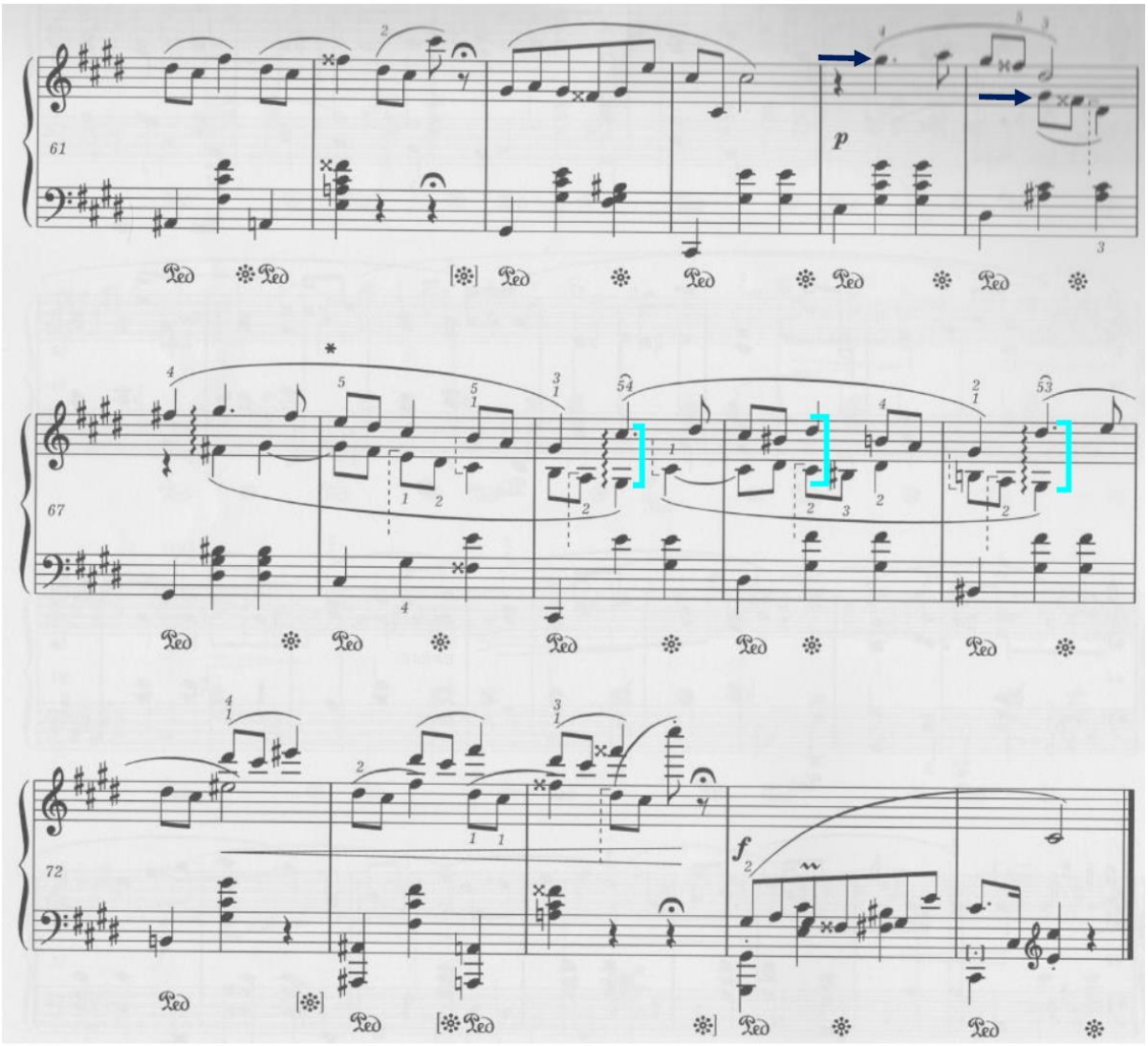
[167] Chopin, *Nocturnes,* 98.




Example 2.33 Chopin Nocturne Op. 55/2 Bars 34-36[168]

A similar approach can be observed in the last published mazurka, where Chopin wants to feel the voice exchange with one hand. In Rosen's words 'it is evident that he wished not only to hear the canon but *to feel* the two-part counterpoint in one hand.'[169]

[168] Ibid, 100.
[169] Charles Rosen, *Piano Notes: The Hidden World of the Pianist* (London: Penguin, 2004), 22. Italics my own.




Example 2.34 Chopin Mazurka Op. 63/3 Bars 67-76[170]

Composed in 1846, the last published mazurka contains a canon that Chopin wrote for the right hand. When the interval goes beyond the stretch of his hand, Chopin does not take the easier option of placing it in the left hand; instead, he instructs the pianist to arpeggiate it.

From the above discussion, one can observe that Chopin's haptic process relies on circular wrist movements that, throughout his compositional career, help him to explore various possibilities from transition passages to thematic motives and textures. Presumably, Chopin's haptics were also

[170] Fryderyk Chopin, *Mazurki* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 1998), 156.

dependent on the muscle memory of his hand, which allowed him to remember certain handshapes and movements that worked well for his physicality. The frequent occurrence of such similar wrist movements could be viewed as a trope which the physical memory of the hand led him to when he composed or improvised. Eventually, he was able to use it within multi-voiced passages that still remained ergonomic. Such haptic tropes are also used in his sonatas as his pianistic responses to the challenges of the sonata form.

Reconciling the limitations of Haptic Analysis

Despite John Rink's years of research into espousing the relationship between performance and analysis, he expressed his reservations on this branch of study in a recent article 'The F(utility) of Performance Analysis'.[171] Not only does he find the term performance analysis 'linguistically awkward', but he sees the methodologies differing so greatly that 'their association under one broad umbrella is unhelpful and possibly unjustifiable'.[172] He further contends that not only are the 'aims and outcomes of performance-analytical work problematic,' but 'the underlying values and assumptions correspond too closely to those pertaining to score-based analysis'.[173] All these problems inevitably reduce the practical utility of performance analysis. His proposed solution, then, was that the performance analyst should, 'at all times,' explicitly acknowledge his/her 'goals and […] both the limitations and the positive attributes of a given analysis'.[174] In his analysis of Chopin's Op. 28 No. 6, similar to my haptic analysis, he discussed it being based on the 'feel of performance'. This kind of analysis he concedes will not have 'gone far enough, *nor could any single analysis fully explain* what the music does or how it affects us'.[175] Rink further explains:

> That does not mean it necessarily lacks value, however. As I suggested earlier, the utility of a given analysis will depend at least in part on what one wishes to do with it, and the aim here has been not to define an absolute truth about the music but rather to derive an understanding that reflects considerations of possible relevance to its eventual performance.[176]

Admittedly, in the absence of sketches and written records of Chopin's compositional process, I can only make inferences that Chopin's haptics have preceded his musical ideas and the notated score. Having to deal with whether his thematic or structural considerations or haptics first led to his compositions, I face the chicken and egg situation. Consequently, the end results of haptic analysis,

[171] John Rink, 'The (F)utility of Performance Analysis' in *Artistic Practice as Research in Music: Theory, Criticism, Practice* edited by Mine Doğantan-Dack (Farnham: Ashgate Publishing, 2015), 127.
[172] Ibid, 127.
[173] Ibid, 128.
[174] In the words of Rink, 'Explicit acknowledgement of one's goals and of both the limitations and the positive attributes of a given analysis is necessary at all times.' Ibid, 145.
[175] Ibid, 142. Emphasis added.
[176] Ibid.

like Rink's, will only ever be speculative. Furthermore, not being Chopin myself, I have to use my own tools as a pianist to map more generally onto a theory about Chopin's haptics, causing the reliability of this mode of analysis to be even more problematic and challenging. Nevertheless, the value of such an analysis should not be diminished since we are not concerned with 'an absolute truth' about the music at hand. While Rink aims for 'possible relevance to its eventual performance', I am interested with how an alternative model of haptic analysis might better explain Chopin's unusual approach to construction in his sonatas.

While I neither possess Chopin's hands nor have the ability to replicate his experience at the piano, the *PM* and his letters have served as a guide to retrace his train of thought. As I have demonstrated, his compositions of smaller forms respect the incremental nature of improvisation as he gradually, through his haptics, develops one motive to another such that we rarely enter any isolated transitions. There is therefore a possibility that his haptics have motivated his compositional process such that it was the physical aspects of playing, a process of haptic exploration, that came prior to the musical thought followed by the notated score.

Nevertheless, Jonathan Kramer has raised the objection that any form of unity that we observe, whether through study of the score, performance or aural perception, cannot exist physically. He terms the former 'textual unity', and the latter two 'experiential unities'. He writes that 'textual unity does not exist physically: we cannot point to the unity in a score or a performance but only to the elements that are allegedly unified […] textual unity resides in the perceived similarity between events while experiential unity is the experience of relatedness one may have when noticing similar events'.[177] For a composer like Chopin, whose musical inspiration comes directly from an interaction with the piano, it becomes very possible that both textual and physical unities are inseparable and likely to influence one another.

Extending the framework of Code, Rink and Montague, my methodology of haptic analysis will focus on my observations of various hand movements and positions implied by Chopin's writing in Op. 35 and Op. 58. To reiterate an earlier point made, I argue that even in Chopin's workings in larger-scale forms, it is this physicality that generates an improvisatory impulse, which then unites with harmony, voice-leading procedures and structure to create a sense of textural logic and thematic unity. The last chapter will use this model to argue that structural analysis has failed to observe the important role of Chopin's improvisation and pianism in creating unity, and instead relied on tracing

[177] Kramer, *Postmodern Music*, 101.

the path of overarching thematic cells. Before coming to this, we need to survey the reasons why the reception of Chopin's sonatas has often been problematic and why his attitude to improvisation might be considered as unusual.

Chapter 3: Studies of Chopin's Sonatas

For the purposes of this chapter, I will only be dealing with Chopin's mature solo piano sonatas. Op. 4 will not be addressed in larger detail because it was written when Chopin was younger, and at this time there is very little evidence of haptic processes emerging as a result of his interaction with the piano. Dedicated to his teacher, Józef Elsner, Op. 4 was submitted as a piece of assignment. While the young Chopin was innovative and daring with his use of harmonies, structurally, the sonata bears a resemblance to those of the Germanic model as typified by Beethoven. The most obvious example of this comes from the second movement, a minuet, which is also the only minuet he composed in his entire career. Arguably, in Op. 4, Chopin had yet to develop his characteristic style of writing for the sonata genre.

His Cello Sonata Op. 65, although composed even later than his third sonata, will also not be discussed. Because this dissertation is concerned with how Chopin derived his idiomatic writing through his haptic process, the presence of the cello in this sonata provides an essential dialogic element that fundamentally alters the landscape. Unfamiliar to the affordance of the cello, Chopin often sought help from his best friend, Auguste Franchomme, also the dedicatee of the work.[178] The numerous sketches consisting of over 200 pages worked out over a period of 2 years, demonstrated a different compositional process to his solo works. Leikin observed that the 'difficulties apparently had to do with the less familiar medium and not with formal design' while Samson suggested a compositional attitude akin to that of Beethoven.[179] Chopin's letter to his sister also documented a different compositional process: 'I write a little and cross out a lot', that George Sand witnessed when Chopin composed his solo works in front of the piano.[180]

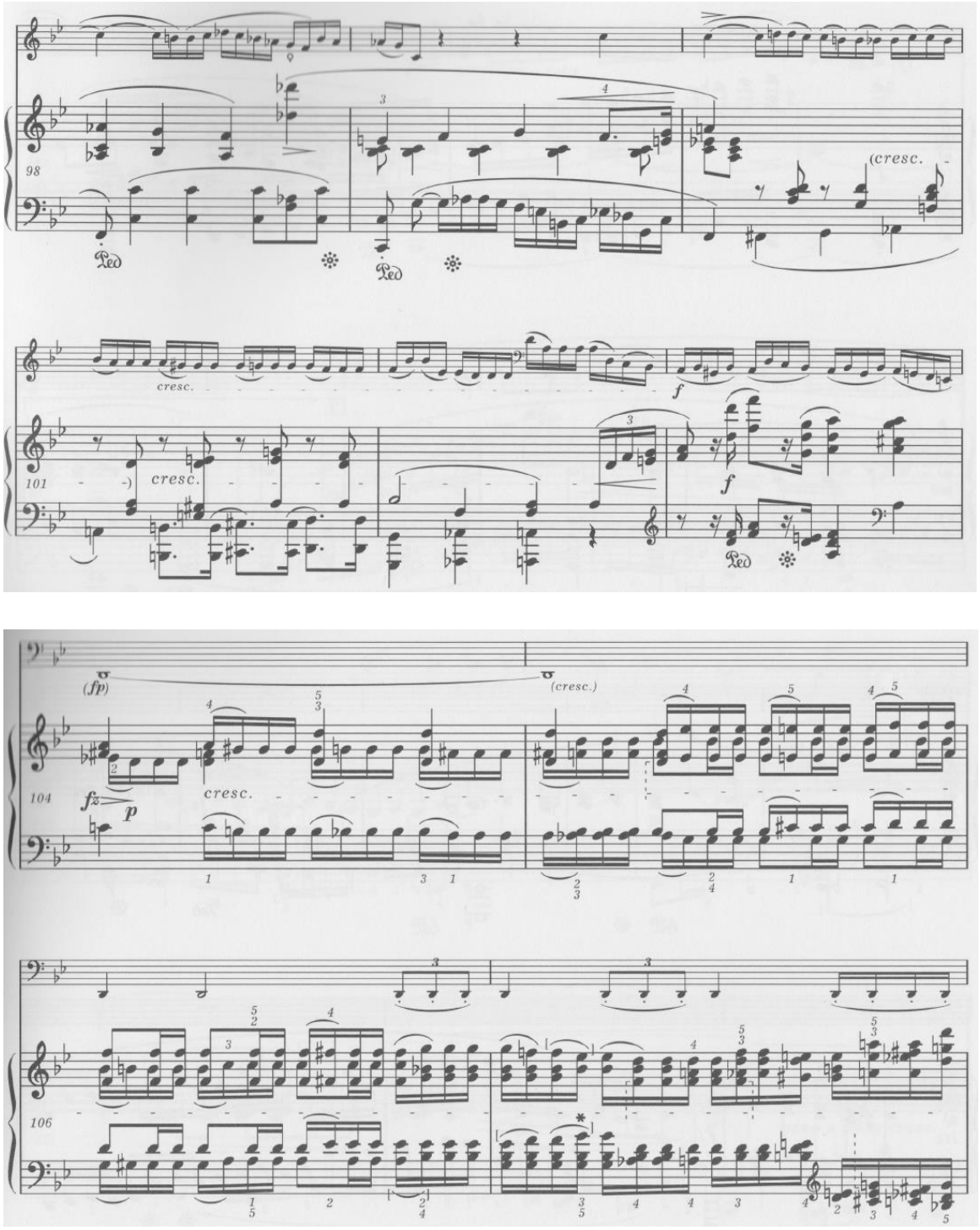
As an equal partner in the sonata dialogue, the idiomatic cello writing necessarily influences the precise shapes of Chopin's intervallic patterns and figurations when transferred to the piano. In my opinion, this has limited Chopin because, unlike in the solo piano works, the cello sonata frequently requires him to fit his piano writing around the cello and thus does not leave him with as much

[178] While Eigeldinger calls the work a collaboration between the two men - 'collaborated with him' - Peter Russell gave a more decisive opinion stating that 'he [Chopin] had written the cello part first [and] he was forced to restrain his keyboard tendencies and to write in a way that was almost alien to him'. See Peter Russell, *Delphi Masterworks of Frédéric Chopin (Illustrated)*, (United Kingdom: Delphi Classics, 2018), no pagination. Nevertheless, neither Chopin's letters nor accounts of Franchomme demonstrate that the cello part was written prior to the piano part.

[179] Anatole Leikin, 'The Sonatas' in *The Cambridge Companion to Chopin* edited by Jim Samson (Cambridge: Cambridge University Press, 1992), 184. Comparing to the 9 pages of sketches from his Op. 61, Samson contends that 'Chopin comes closest to the Beethovenian approach in his Op. 65 for which there are more than 200 pages of sketches.'

[180] Fryderyk Chopin, *Selected Correspondence of Fryderyk Chopin* Collected and Annotated by Bronislaw Edward Sydow edited and translated by Arthur Hedley (London: Heinemann, 1962), 301.

freedom as the former genre. In example 3.1, bars 104-107, for instance, the piano-part imitates the cello and hence the articulation of the piano-writing exists as a result of the cello rather than his haptics at work.




Example 3.1: Chopin Cello Sonata Op. 65 Bars 98-107[181]

[181] Fryderyk Chopin, *Works for Piano and Cello* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2010), 61.

Criticisms

Early studies of Op. 35 considered Chopin as incompetent in the handling of the sonata form due to a lack of structural unity and coherence across the individual movements. These studies tended to quote the opening paragraph of Schumann's 1841 review, that 'Chopin seems to have taken four of his maddest children and put them together,' as the fundamental basis of their criticism.[182] In 1851, a biography of Chopin by Liszt echoed these sentiments as he observed that Chopin, despite being able to compose his sonatas and concertos beautifully, struggled with adhering to the basic rules of the sonata genre. To quote Liszt:

> Chopin offered violence to the character of his genius whenever he sought to subject it to rules, to classifications, to regulations not his own, and which he could not force into harmony with the exactions of his own mind. [183]

Liszt's criticisms of Chopin's sonatas reveal a paradox when one takes into consideration the B minor sonata that he was working on from 1849. Completed four years later in 1853 and published the next year, Liszt's sonata does not in any way conform to traditional sonata models, as in the case of Chopin's. Instead of casting his sonata in three or four movements, Liszt unified these movements into a single movement with 'three organically interwoven movements'.[184] Such ground breaking attempts at formal organisation within the sonata genre are also witnessed in his other works such as the *Dante Sonata* (1837-49), symphonic poems (1848-1858) and the A major Piano concerto (1849-50). It is therefore a paradox for Liszt to suggest that 'Chopin offered violence to the character of his genius whenever he sought to subject it to rules, to classifications, to regulations not his own', when his own compositions of the same genre do not follow the conventional mould.

Concert reviews during the late nineteenth century in England included similar observations. In 1879, after a concert by Marie Krebs featuring Chopin's op. 35, a music critic wrote that 'on being called back to the platform, the clever young artist played an impromptu by the same composer, who is always happier in short pieces, where his inspiration seldom fails than in pieces of the sonata or concerto form, which exact a power of development he could never boast.'[185]In the farewell concert

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[182] As translated by Henry Pleasants, in 1841, Schumann described the work as 'four of Chopin's maddest children under the same roof.' Robert Schumann, *Schumann on Music: A selection from the writings* translated and edited by Henry Pleasants (New York: Dover Publication, 1988), 173.

[183] Franz Liszt, *Life of Chopin* translated by M. W. Cook (New York: Dover Publications, 2005), 6.

[184] German musicologist Eugen Schmitz termed it '*drei allerdings* organisch ineinandergeflochtene Sätze'. Quoted from Steven Vande Moortele, *Two-Dimensional Sonata Form: Form and Cycle in Single-Movement Instrumental Works by Liszt, Strauss, Schoenberg and Zemlisky* (Belgium: Leuven University Press, 2009), 35. In contrast, Charles Rosen has viewed Liszt's B minor sonata as a four-movement work 'compressed into a single sonata movement'. See Charles Rosen, *The Romantic Generation*, 480.

[185] Anon, 'The Popular Concerts' *The Musical World* 57 No. 14. 5th April 1879, 211.

of Vladimir de Pachmann in 1884, another music critic wrote that 'Chopin's Funeral March sonata, the most considerable piece included, is not very substantial musical fare'.[186] Clearly, these reviews indicate that Chopin is never quite as successful with his handling of the sonata form as with his work in small genres.

In 1890, adding to Liszt's commentaries, Frederick Niecks, a German music scholar, commented on Chopin's Op. 35, and specifically on its individual movements. He contended that:

> With Chopin, writing a concerto or a sonata was an effort, and the effort was always inadequate for the attainment of the object—a perfect work of its kind. He lacked the peculiar qualities, natural and acquired, requisite for a successful cultivation of the larger forms. He could not grasp and hold the threads of thought which he found flitting in his mind, and weave them into a strong, complex web; he snatched them up one by one, tied them together, and either knit them into light fabrics or merely wound them into skeins. In short, Chopin was not a thinker, not a logician—his propositions are generally good, but his arguments are poor and the conclusions often wanting.[187]

In his next volume of Chopin's biography, he specifically pointed out that the middle movements of Op. 35 'do not rise to the dignity of a sonata' and questioned whether Chopin had initially conceived these four pieces as a cyclical work or whether they were written 'without any predestination and were afterwards put under one cover.'[188] Niecks' German heritage perhaps encouraged such criticisms of Chopin being unable to 'grasp and hold the threads of thoughts' and he described Chopin as 'not a thinker or a logician'; he came from the school of thought that viewed the sonata genre as an intellectual form of a German heritage, exemplified by Beethoven.[189] Rather than looking at Chopin's contribution to the genre, Niecks' evaluation prioritises the formal coherence of the sonata and thus criticises Chopin's incapacity to organise his thematic materials. Recognising Chopin only as a 'Kleinmeister', Niecks went on to summarise Chopin's attempts in the sonata-forms as 'failures.'[190] At the turn of the century, in support of Schumann's review, James Huneker wrote:

> Schumann says that Chopin here ''bound together four of his maddest children'' and he is not astray. He thinks that the march does not belong to the work. It certainly was written before its companion movements […]. These four movements have no common life […] Perhaps the last two movements do hold together but what do they have in common with the first two? Tonality proves nothing. Notwithstanding the grandeur and

[186] Anon, *The Musical World* 62 No. 9 1884, 135.
[187] Frederick Niecks, *Frederick Chopin as a Man and Musician Vol 1* (London: Novello, Ewer and Co. 1888), 205.
[188] Frederick Niecks, *Chopin Man and Musician Vol 2*, 225, 229.
[189] Further into this chapter, I include a discussion of A. B. Marx's Sonatenform and how he had come to demonstrate sonatas as a 'work of rationality and logicality,' emphasising the structural autonomy of music, which eventually became the basis of evaluating a sonata. A. B. Marx, *Die Lehre von der musikalischen Komposition, praktisch-theoretisch Vol. 3.* (Leipzig: Breitkopf and Hartel, 1845), 165.
[190] Niecks, *Chopin as Man and Musician Vol 1*, 214.

> beauty of the grave, the power and passion of the scherzo, this sonata in B flat minor is not more a sonata than it is a sequence of ballades and scherzos. [191]

Three years later, a commentary by James Hadden, despite initial praise of Op. 35, put forth a similar opposition. Like Huneker, Hadden quoted Schumann's famous commentary of Chopin's Op. 35 as his main piece of evidence and went further to explain that 'the four movements regarded separately are admirable but taken together they have little thematic or other affinity'.[192]

Hadden and Huneker, American and Scottish respectively, interpreted Schumann's review of Chopin's Op. 35 as derogatory criticism. Such negative remarks concerning Chopin's op. 35, in support of Schumann's review, were widespread during the second half of the nineteenth century. Yet, it either revealed that these writers had read only the opening paragraph of Schumann's review, or had misunderstood Schumann completely. 'Maddest' - the equivalent of the German word 'tollsten' that Schumann used in his 1841 review - can have both positive and negative connotations, as I will contend in the next section. Nonetheless, the abovementioned writers have all seemed to assume it as having only negative meanings.

Completed five years after Op. 35, the reception of Chopin's Op. 58 although not entirely negative, remained mixed until the turn of the twentieth century. As early as December 1845, Kalkbrenner wrote a letter to Chopin praising his sonata in B minor as a 'fine' work. [193] Modern writers, including Kenneth Hamilton, come close to suggesting that Liszt might have used Chopin's Op. 58 as an inspiration for his own B minor sonata.[194]

Between the 1960s and 1990s, a group of writers raised concerns specifically about architecture and construction in Op. 35. A Polish writer who settled in Dresden, Maurycy Karasowski, wrote that Chopin 'seems to have found it difficult to keep the profusion of thought within due proportions, especially in the Adagio'.[195] Likewise, music critic Wadham Sutton wrote that while 'the B minor sonata conforms to a more cogent architectural plan than the earlier Op. 35 […] it is still

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[191] See James Huneker, Chopin: *The Man and His Music* (New York: Charles Scribner's Sons, 1900), 166-167.
[192] James Hadden, *The Master Musicians: Chopin* (London: J. M. Dent and Sons Limited, 1903), 186.
[193] On 25th December 1845, in a letter to Chopin, Kalkbrenner wrote: 'I should like to ask you a great favour: my son Arthur makes so bold as to want to play your fine Sonata in B minor, and ardently wishes for advice from you, so that he may come as close as possible to your intentions.' Chopin, *Selected Correspondence*, 242-243.
[194] Kenneth Hamilton writes that 'Liszt, who admired and performed both Chopin's and Hummel's sonatas, uses a similar procedure in the Sonata in B minor'. See Kenneth Hamilton, *Liszt Sonata in B minor* (Cambridge: Cambridge University Press, 1996), 15. Similarly, another group of writers write that 'Liszt was familiar with Chopin's sonata in B minor, greatly admired it and wrote out his own copy'. See Gerard B Carter and Martin Adler, *Franz Liszt's Precursor Sonata of 1849: A Trial Run in the Master's Inner Circle* (Ashfield: Wensleydale Press, 2011), 14
[195] Maurycy Karasowski, *Frederic Chopin: His Life and Letters* (Westport: Greenwood Press, 1970), 396.

weakened by its episodic character' and lacking in organisation.[196] Both Władysław Zieliński and Jim Samson found the development section problematic. Zieliński argued that because of a lack of attention given to the development of the primary theme, there is an 'illogical progress of the structural plan in the development section'.[197] Samson, on the other hand, pointed to the appearance of the 'second limb of the second subject' in the development section as 'weaken[ing] the sense of flow' and expressed it as 'the only unsure step in a masterly presentation'.[198]

Pianist Peter Gould claimed that the numerous thematic materials in the first movement posed a threat to its structural unity and claimed that these thematic materials would in fact be 'sufficient for twenty-five Sonatas by a composer twenty-five years previously'.[199] Like Gould, Donald Ferguson described the first movement as 'diffuse', adding that not only is it technically demanding, it also 'lacked spiritual satisfaction'.[200] Using Beethoven as a comparison, he further contended that while 'Beethoven might have been able to strike developmental fire out of the principal subject, Chopin could only manipulate it'.[201] Neither was he able to reconcile with the second nor the third movement, writing that the former lacked 'stern irony' and is 'merely graceful' while the latter cannot 'be saved from banality'.[202] Interestingly, Herbert Weinstock, who hailed Chopin's sonata as 'one of the perfect formal achievements of music', also disapproved of the structure of the third movement of Op. 58.[203] He described the *sostenuto* E major section as 'cloying', thus establishing a 'sensation of imbalance' in the movement and in the entire sonata.[204]

In sum, criticisms of Chopin's sonatas are situated on two levels of construction. On a micro level, there is a lack of unity within each movement, and on a macro level, there is a lack of structural unity within the four movements. Whether or not Chopin's works are unified, these perceptions come

[196] Wadham Sutton, 'Chopin Sonata in B minor Op. 58' *Music Teacher* Volume 52, 1973, 13.
[197] Władysław Zieliński, *Kompozytorzy polscy o Chopinie. Antologia* edited by Mieczysław Tomaszewski (Kraków: Polskie Wydawnictwo Muzyczne, 1980), 30. Quoted from Adam Zukiewicz, 'Chopin's Third Piano Sonata, Op. 58: Late Style, Formal Ambiguity, and Performance Considerations' (Doctor of Musical Arts University of Toronto, 2012), 25.
[198] Jim Samson, *The Music of Chopin* (London: Routledge and Kegan Paul, 1990), 136.
[199] Peter Gould, 'Concertos and Sonatas', in *Frederic Chopin: Profiles of the Man and the Musician* edited by Alan Walker (London: Barrie and Rockliff, 1966), 161.
[200] Donald N. Ferguson, *Piano Music of Six Great Composers* (Freeport: Books for Libraries Press, 1970), 243.
[201] Ibid.
[202] Ibid.
[203] Herbert Weinstock, *Chopin. The Man and His Music* (New York: Alfred A. Knopf, 1949), 241.
[204] Ibid, 275. To quote Weinstock, 'The largo third movement is the least well-conceived of the Sonata's four. Its opening section, somewhat marmoreal and funeral, harks back to the 'Marche funebre', but soon gives way to a cloying section in E major, sostenuto […] nor does the gradual improvement in timing as the movement proceeds wholly wipe out the damage of that unfortunately established sensation of imbalance. The movement has considerable beauties, but does not, as one of four, contribute well to the solidity of the sonata'.

from the view that Chopin is incapable of handling extended forms, an opinion that has found support through a misrepresentation of Schumann's 1841 review.

Schumann's Review: A Closer Look

*'Sonate nannte mochte man eher eine caprice heiben wenn nicht einen vebermuth dab er gerade vier seiner tollsten kinder zusammenkoppelte sie unter diesem namen vielleicht'*.[205] This is the German text of the most famous segment of Schumann's 1841 review. The word 'tollsten' has previously been translated as 'maddest'; but when used in this context it can be argued that there is a positive meaning attached to it. While a direct translation of the word to English does not exist, it can be used to refer to something possessing whimsical or ingenious qualities.[206] Schumann's potential praises did not stop here. A few sentences later he added, 'perhaps years later, [a] romantic grandson will be born and raised, will dust off and play the sonata and will think to himself, ''this man is not so wrong after all.''[207] He goes on to write:

> It is regrettable that most pianists even the cultivated ones cannot see and judge beyond anything they can master with their own fingers. Instead of first glancing over such a difficult piece, they twist and bore through it, measure by measure and then when scarcely more than the roughest formal relationships become evident they put it aside and call it bizarre, confused.[208]

Clearly, Schumann's predictions were accurate. It was not until many years later that the general public started to appreciate Chopin's Op. 35. Schumann also accurately pointed out that Chopin's Op. 35 would be cast aside and receive criticisms because of its complicated harmonic writing. Paragraphs later, regarding the approach to Op. 35, Schumann recommended that one 'should not stop too long at the first reading in order not to lose the continuity'.[209] With the advice given, Schumann discussed the unity of this work arguing that unlike a typical Beethoven sonata whose unity lay in the thematic organisation of materials, Chopin's unity involved that of mood: 'The second movement is only the continuation of this mood, daring, sophisticated […] still more sombre a *Marcia funebre* follows.'[210]

Perhaps his only reservation about the work remains the final movement, in which he nonetheless concedes 'what we get in the final movement seems more like a mockery than any music.

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**[205]** Schumann*, NZfM* February 1841, 39**.**
[206] I am grateful to Dr Florian Scheding for helping with the German translation of Schumann's review and with Leichtentritt's analysis of Chopin.
[207] Schumann, *Schumann on Music,* 173.
[208] Ibid.
[209] Ibid, 174.
[210] Ibid.

And yet, one has to admit, even from this unmelodic and joyless movement a peculiar frightful spirit touches us.'[211] Taking into consideration Schumann's 1841 review in its entirety, it is clear that Schumann is not entirely against Chopin's Op. 35. Schumann was ready to praise Chopin for his ability to create beauty out of dissonances throughout the work, to bring to mind the image of a 'frightful spirit' through his idiomatic writing for the piano, and to unify the work through a succession of moods from one movement to the other. This is perhaps where Chopin's originality for this genre lies.

Variations between Translations: Maddest, Wildest, Unruly

Interestingly, despite being the sentence from the review that is most often quoted, there is a lack of consensus among Anglophone Chopin scholars as to which adjective best translates Schumann's view:

| Maddest | Wildest | Unruly |
|---|---|---|
| James Huneker | I.M.E Von G | Jim Samson |
| James Hadden | Ashton Johnson | Peter Gould |
| Henry Pleasants | Jeremy Nicholas | |
| Alan Walker | Richard Taruskin | |
| Anatole Leikin | | |

Table 3.2 Summary of adjectives used by various biographers

These three adjectives imply a different intensity of insult; where 'maddest' would be the sharpest. 'Unruly' and 'wildest' are probably of a lesser degree, since they give the idea of the untameable, the virtuosic and of pushing boundaries.

It is noticeable that every analytical defence of Op. 35 cites Schumann's review as an example of criticism, often quoting the analogy of 'four maddest children put under one roof'. Vice versa, any critique of Op. 35 will quote Schumann's review to support the argument. As I have contended earlier, Schumann's review was in no way negative or an indication that the four-movement sonata lacked unity. Nevertheless, over time, this small part of his review, when viewed as a criticism, has gradually become a strong motivation for analytical writers to dispel any doubt about structural unity and motivic connection in Op. 35. The procedure these writers used to demonstrate unity in the works of

[211] Ibid.

Beethoven's sonatas and symphonies, and to defend Chopin's Op. 35, was similar. As I have pointed out at the outset of this dissertation, to use the same methodology interchangeably between two composers of different aesthetic values can be problematic on two counts. The reasons are reemphasised as follows: Firstly, it ignores important aspects of Chopin's sonatas that are located within contexts of nineteenth-century pianism and aesthetic climate: virtuosity and improvisation; secondly, analysts who use Beethoven as a model of comparison are arguably not engaging in hermeneutic analysis, but in a presentist project because of their vested interests and associated value judgements.[212] A survey of some of these works has been undertaken in later sections to demonstrate that this method of analysis is not fully equipped to explain some of the characteristics of Chopin's Op. 35. Before that, I will delve into the history of sonata forms to explain the underlying basis of the earlier criticisms associated with Chopin's construction of his piano sonatas.

Historical Context of Sonata Forms and Analysis

As a multi-movement work, the sonata has run its course over the entire span of western music history and gained popularity during the seventeenth and eighteenth centuries. Over the years, it has undergone numerous cultural, stylistic and musical development and changes.[213] After a close investigation of the whole trajectory of the history of the sonata, in 1966, William Newman's three-volume monumental study *History of the Sonata Idea* established six basic attributes of a sonata. Ultimately, this led him to a general definition of the sonata as 'a solo or chamber instrumental cycle of aesthetic or diversional purpose, consisting of several contrasting movements based on relatively extended designs in "absolute" music.'[214]

During the second half of the eighteenth century, the sonata principles became more developed under the hands of Haydn and Mozart. It ultimately culminated with the symphonic and instrumental works of Beethoven. Consequently, in the subsequent treatises on the sonata including Antonin Reicha's *Traité de haute composition musicale* volume II (1826), Adolph Bernhard Marx's *Die Lehre von der musikalischen Komposition* volume Ill (1845) and Carl Czerny's *School of Practical Composition* (1848), these works were used as models of reference.[215] Because all three were teachers,

[212] As quoted from an earlier source at the outset of the dissertation, 'Chopin's associations with the salon have proved a considerable obstacle to his public success in Germany […] it was above all the Breitkopf edition which changed that, conferring dignity on Chopin in the German world'. See Jim Samson, 'Chopin Reception: Theory, History, Analysis', 2, 6.

[213] In this discussion, the term sonata refers to the multi-movement work while the term sonata form refers to the first movement of that multi-movement work.

[214] William Newman, *The Sonata in the Baroque Era* (Chapel Hill: University of North Carolina Press, 1966), 7.

[215] In an article, Newman demonstrates that the first publication of Czerny's treatise in German was slightly before 1840. See William Newman, "About Carl Czerny's Op. 600 and the 'First Description of 'Sonata Form,' *Journal of the American Musicological Society* Vol. 20 No. 3 (Autumn, 1967): 513-515

their treatises were codified to serve pedagogical purposes, or in the words of Charles Rosen 'an attempt to reach greatness by imitation of classical models.' [216] Instead of an expressive description of terms seen in the previous writings of Heinrich Koch, Johann Sulzer and Daniel Türk, for instance, these nineteenth-century treatises were written as a set of guidelines or instructions for composition students with an emphasis on the overall design of the sonata and the first movement sonata form.[217] A typical example by Czerny was quoted and criticised by Newman:

> Then, Czerny went on to "describe" in detail, in the forty-nine pages of his sixth chapter, what "must" go into each of the four movements (allegro, adagio or andante, scherzo or minuet, and finale or [i.e., especially] rondo). In connection with the first movement (and with a proscription against returning to the "original key" in the development section), he cautioned that "we must always proceed in a settled form. For, if this order were evaded or arbitrarily changed, the composition would no longer be a regular Sonata." He still viewed the first movement, at least nominally, as being in "two parts." Its first part consists of the "principal subject," its extension and a modulation to "the nearest related key," a "middle subject" and its extension in the related key, and a "final melody" that closes in that key at the repeat sign. Its second part divides into two sections, a modulatory "development" (the translator's word) of any of those ideas or a new one, ending back in the original key; and a recapitulation (not so called by the translator) that restates the first part except for abridgments and adjustments needed to remain in the original key.[218]

For Newman, such efforts of describing the sonata principles explicitly among these nineteenth-century theorists in their treatises had resulted in a 'levelling effect at least among the weaker, less imaginative composers of rigidifying the more fluid form making it into a stereotype'.[219] Similarly for Rosen, such a sonata 'recipe' was too rigid and inflexible to accommodate the 'fluidity of 19th-century tonality', while Tovey denied the theoretical concept of having rules about the 'number or distribution of themes in sonata form.' [220] Bearing in mind then, that eighteenth-century piano

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[216] Rosen, *Sonata Forms* (London: Norton, 1988), 5

[217] Heinrich Christoph Koch, *Versuch einter Anleitung zur Composition* (Leipzig: Adam Friedrich Bohme, 1793). For instance a paragraph on sonata by Sulzer is described as follow 'In a sonata the composer can strive to create a monologue in tones of sadness, grief, tenderness or joy of delight, or sustain a sensitive dialogue in impassioned tones of equal or contrasting character, or simply depict powerful, stormy, contrasting, or light, soft fluent, and pleasing emotions'. Quoted from Michael Broyles, *Beethoven: The Emergence and Evolution of Beethoven's Heroic Style* (New York: Excelsior Music Publishing, 1987), 10. Similarly by Türk, 'the composer has fewer limitations in regard to character in the sonata that in any other instrumental piece. For every type of feeling and suffering can be expressed in it'. Daniel Gotlob Türk, *School of Clavier Playing* translated by Raymond H. Haggh (Lincoln; University of Nebraska Press, 1982), 383

[218] Newman, *Sonata*, 31

[219] Ibid, 112

[220] Charles Rosen, *The Classical Style Haydn Beethoven and Mozart* (New York: Norton, 1998), 31. 'The recipe was not only inflexible: it also did not take account of the fact that by 1840 the proper ingredients were no longer being produced. Nineteenth-century tonality had become too fluid for the system of strictly defined modulations, bridge passages, and the like set up by the theorists'.
Donald Francis Tovey, *The Forms of Music* (New York: Meridian Books, 1956), 210. 'There are no rules whatever for the number or distribution of themes in sonata form.'

sonatas by Mozart and Haydn, for instance, also differ greatly from the standard model of a sonata form, the idea of a standard mould for the sonata thus possibly existed only in the fevered imaginations of nineteenth-century German theorists. More recently, James Hepokoski and Warren Darcy accused these guidelines of being 'inadequate in dealing with actual musical structures at hand'.[221] Despite the flawed textbook formula as observed by these scholars, it is important to emphasise that these treatises existed primarily for pedagogical reasons, in which case, explicit and clear instructions would thus benefit younger and aspiring composers. To use these theoretical treatises as a basis of evaluating and criticising actual sonata compositions would thus be inappropriate and would lead to the identification of insufficiencies. Yet, a more interesting question lies ahead for the purpose of this chapter: in what ways and to what extent did Chopin engage with these treatises in his own sonatas?

Newman's study, despite providing the most extensive scope and coverage of the historiography of the sonata, could not hide his pro-German attitude. In the introduction of *The Sonata since Beethoven*, he exerted that Germany hegemony and the influence of Beethoven were the two main themes overarching the entire study.[222] He prioritised the works by German composers living in Austria and Vienna, while downplaying the efforts of others. In his discussion on Reicha's treatise for instance, he observed that Reicha 'does not quite recognise the ternary implications of the [sonata] design'.[223] Although, by tradition, the historiography of the sonata has always come through the Austro-German line rather than the French, it is Reicha's treatise that exerted the most influence on the young Chopin. The overall structure of the first movement of his piano sonata Op. 4 bears a close resemblance to Reicha's description of *grande coupe binaire*. In the monograph *Music in Chopin's Warsaw* Halina Goldberg observed that

> The movement neatly falls into three almost perfectly equal sections. Such a plan is advocated for the grande coupe binaire by Anton Reicha in his *Traité de Haute Composition Musicale* which Warsaw's musical circles, well acquainted with Reicha's earlier writings and cultivating a direct connection with the Parisian musical scene, might have known very soon after its publication.[224]

At first glance, Chopin's clear division of the first movement into three equal parts might appear to be at odds with Reicha's *grande coupe binaire,* literally translated as large binary form.

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[221] James Hepokoski and Warren Darcy, *Elements of Sonata Theory: Norms, Types, and Deformations in the Late eighteenth-century Sonata* (Oxford: Oxford University Press, 2011), 6.

[222] '*The Mainest Theme — Beethoven's Influence The foregoing remarks on German hegemony in the Romantic sonata lead to what is* at once the most important of these main themes and the justification for the present volume's title'. Newman, *Sonata*, 11

[223] Ibid, 32

[224] Halina Goldberg, *Music in Chopin's Warsaw* (Oxford: Oxford University Press, 2008), 122

Taking inspiration from court dances, namely the minuet, Reicha initially conceived of the sonata form as binary, although comprising three distinct sections underneath this binary design. Reicha's concept of the sonata form was in fact a two-part structure superimposed on to a three-part structure, where the exposition stood as a distinct section on its own while the development and recapitulation were considered as one continuous unit. This concept was effectively communicated through a diagram which was considered a pioneering attempt during his time.

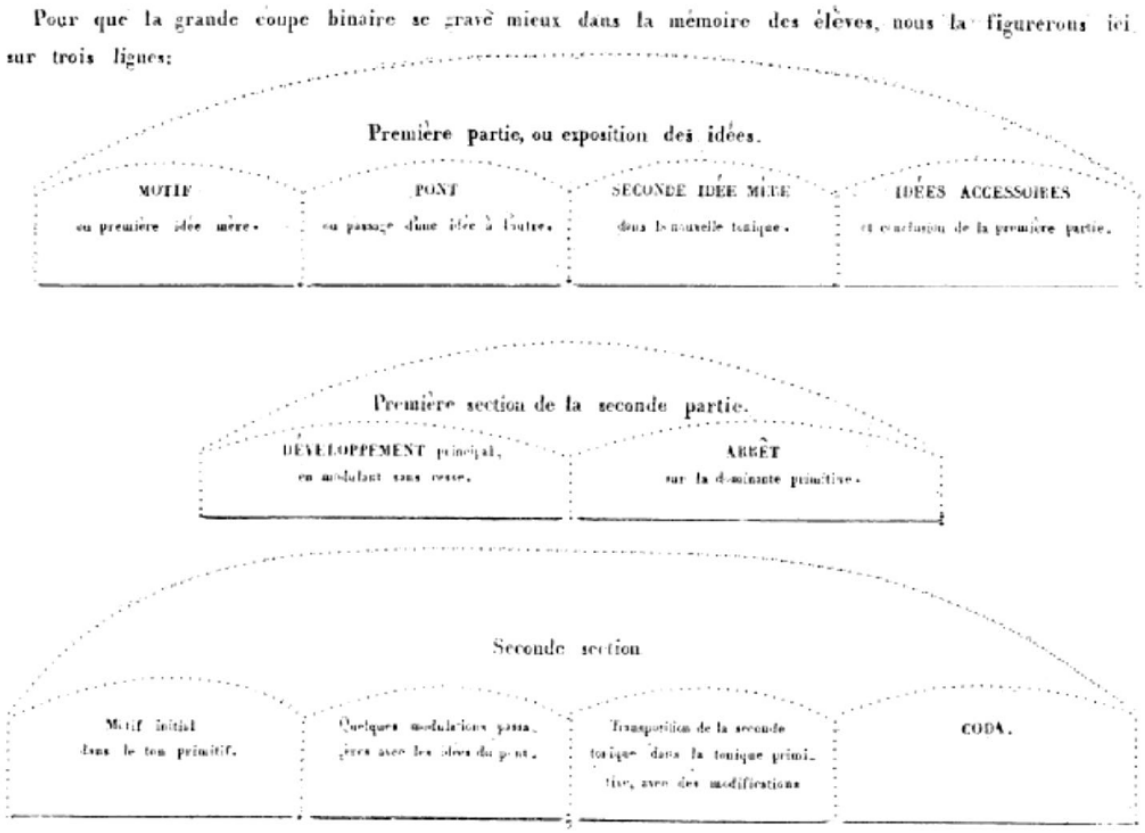



Figure 3.3 Reicha's Grande Coupe Binaire[225]

With respect to proportion, Reicha suggested that 'the second part of this form can never be shorter than the first; but it may be a third longer or even half as long; because the first part is only the exposition, whereas the second is the development.'[226] These three sections are now commonly termed as exposition, development and recapitulation.

[225] Anton Reicha, "Grande coupe binaire" *Traité de Haute Composition Musicale* vol. 2 (Paris: A Farrence, 1824-1826), 300. Première partie, ou exposition des idées. motif ou première idée mère. pont ou passage d'une idée à l'autre. seconde idée mère dans la nouvelle tonique. idées accessoires et conculsion de la premère partie. Première section de la seconde partie. développement principal, en modulant sans cesse. arrêt sur la dominante primitive. Seconde section. Motif initial dans le ton primitif. Quelques modulations passagères avec les idées du pont. Transposition de la seconde tonique dans la tonique primitive, avec des modifications. coda.

[226] 'La seconde partie de cette coupe ne peut jamais être plus courte que la première; mais elle peut-être d'un tiers et même de moitié plus longue; car la première partie n'est que l'exposition, tandis que la seconde en est le développement'. Ibid, 41.

In contrast to Reicha's earlier treatise that deals with the harmonic organisation of thematic materials, this model gives emphasis to thematic and dramatic functions as he compares *l'exposition, l'intrigue*, and *le dénouement* (the untying) to the narrative aspects of a drama.[227] *L'exposition* serves as an introduction for the character and sets the atmosphere for the situation; *L'intrigue* or *noeud* (the knot) is an area where conflict and problems arise; and *le dénouement* allows for resolution of the conflict.[228] He writes that the exposition should consist of two different ideas and a passage or a bridge to move from one idea to the other. The development section that Reicha spends a considerable portion elaborating on in his treatise is dependent on pre-existing materials which should be presented through fragmentation and modulation. He further advised that for these ideas to be effective, they should be presented in different guises and interesting combinations, and finally, to produce unexpected and new effects out of the pre-existing ideas.[229]

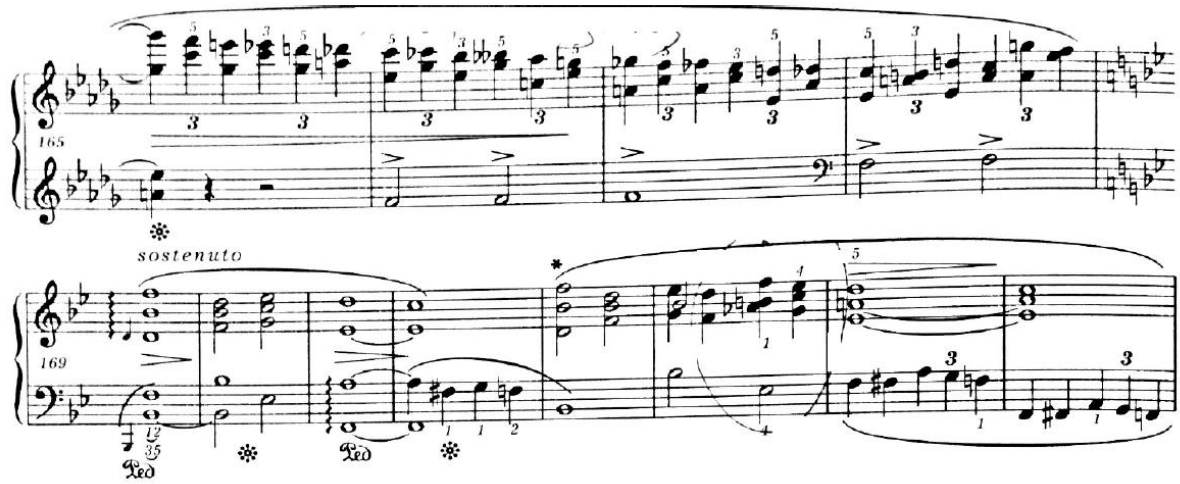
Reicha's *grande coupe binaire* had a lasting influence on Chopin's later sonatas. In both Op. 35 and 58, the primary theme was entirely avoided, instead opening the recapitulation section with the secondary theme (see examples 3.4 and 3.5 below). This manner of recapitulation disagrees with what Czerny advocates in his treatise: after the development 'follows the principal subject and its amplification […] and so modulating that the middle subject might likewise re-appear entire, though in the original key.'[230] Chopin's attempt to blur the boundaries between the development and the recapitulation so that these two sections could be conceived as one continuous unit further emphasise the binary design of the sonata form.

[227] Peter M. Landy, 'Issues in the Development of Anton Reicha's Theory of Grande Coupe Binaire', *Revista de Musicología, Vol. 16, No. 6, Del XV Congreso de la Sociedad Internacionalde Musicología: Culturas Musicales Del Mediterráneo y sus Ramificaciones: Vol. 6* (1993): 3574. 'Most importantly, Reicha now describes grande coupe binaire in quasi-dramatic terms, breaking it up into three distinct sections: the exposition of the ideas-the plot, or knot- and the *dénouement*.'

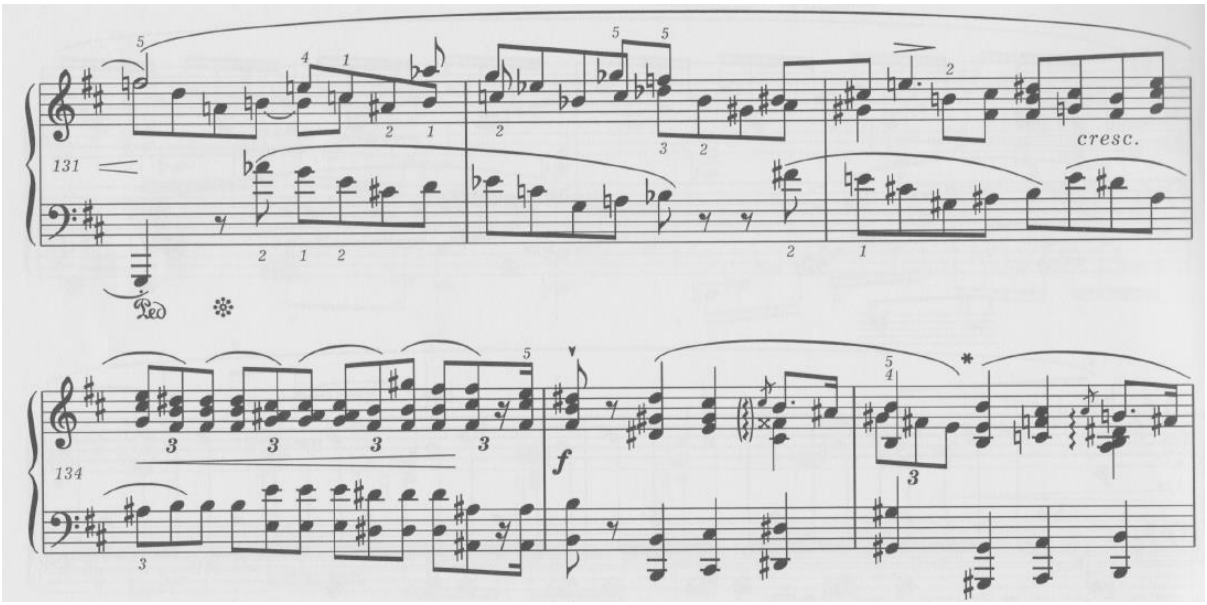
[228] Peter A. Hoyt, 'The Concept of Development' *Music Theory in the Age of Romanticism* edited by Ian Bent (Cambridge: Cambridge University Press, 1996), 147.

[229] Developper ses idees, ou en tirer parti, (apres les avoir fait precedemment entendre,) les presenter sous differentes faces, c'est les combiner de plusieurs manieres interessantes; c'est enfin produire des effets inattendus et nouveaux sur des idees connues d'avance'. Reicha, *Traité de Haute,* 240.

[230] Carl Czerny, *School of Practical Composition: Complete Treatise on the Composition of All Kinds of Music, Both Instrumental and Vocal Together with a Treatise on Instrumentation Volume 1 Opus 600*, Translated by John Bishop (London: R. Cocks & Co.: 1848, reprinted by Da Capo Press: 1979), 33




Example 3.4 Chopin Sonata Op. 35/I Bars 165-176[231]




Example 3.5 Chopin Sonata Op. 58/I Bars 131-136[232]

Reicha's writings reached Germany between 1832 and 1834 through the German translations of Czerny. Highly admired by Czerny, Reicha's other treatises were also translated by him.[233] While it is difficult to find out the extent of influence Reicha's writings have had on Czerny, it is evident that the concept of the sonata form in binary terms resonated with him as reflected in his 1848 treatise.[234] In terms of the style of writing, one can observe a looser description of the sonata form in Reicha's

[231] Fryderyk Chopin, *Sonaty Op. 35, 58* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2010), 18.
[232] Ibid, 48.
[233] This includes also *Traité de mélodie, Cours de composition musicale* (1814) and *ou Traité complet et raisonné d'harmonie pratique* (1818)
[234] 'The first movement consists of two parts.' Carl Czerny, *School of Practical Composition,* 33

treatise than in Czerny's. In practice, this would therefore have given composers more flexibility and a wider scope for imagination and experimentation with the form. Nonetheless, in Germany, it did not gain as much popularity as Marx's treatise. It is certain that Chopin would not have had access to Marx's 1848 treatise, but whether he had read Marx's *Die Lehre von der musikalischen Komposition* of 1838 before working on his mature piano sonatas remains unknown.

Marx's *Sonatenform*, although written for pedagogical reasons, became one of the most influential treatises on this subject. His methodology, focusing on a technical discussion of Beethoven's piano sonatas and emphasising their structural autonomy, became widespread at the turn of the twentieth-century and eventually set the trend for the discussion of musical works in purely analytical terms. This preoccupation with form and trying to intellectualise music through score-based analysis was not without reason. In part, it was due to the nature of music. Marx adumbrates that:

> With the other art forms, however, the question of form has not been so pressing, because the necessity and significance of form is already conditioned and apparent through the object of artistic achievement […] it was revealed in a comprehensible form to everyone in advance. Only music appears as that solitary maiden, not of this world […] For music stands the furthest from the appearances and language of worldly life; because of this, life offers only the faintest clue for music and its understanding.[235]

Indeed, because of an absence of verbal language and a lack of a tangible product as the most obvious form of achievement, the possibility of understanding music has been limited. For Marx, form therefore plays a crucial role in determining 'the content of the spirit' and making it 'comprehensible to the intellect'.[236] He sees Beethoven's piano sonatas as the ideal candidate to demonstrate this task. Furthermore, this phenomenon of intellectualising music during the early decades of the nineteenth century, especially through the works of Beethoven's piano sonatas, was also a solution and outcome of an aesthetic-philosophical debate that once placed music at the lowest rank among other art forms, due to its function as 'the decoration of a moribund court culture'.[237] This process of intellectualising Beethoven's piano sonatas has nonetheless served interesting cultural work.

Unlike both Czerny and Reicha, Marx considered the sonata form as a higher form of the rondo family and perceived it as ternary rather than binary in structure.[238] In the sonata form, themes grow to become more complex and less sectionalised. Two main terms appear frequently in his discussion:

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[235] A. B. Marx, *Musical Form in the Age of Beethoven: Selected Writings on Theory and Method* edited and translated by Scott Burnham (Cambridge: Cambridge University Press, 1997), 61-62.
[236] Ibid, 62.
[237] Celia Applegate, 'How German Is it? Nationalism and the Idea of Serious Music in Early Nineteenth Century' *19th-Century Music* Vol 21 No. 3 (Spring 1998): 281, 286.
[238] A. B. Marx, Musical Form in the Age of Beethoven, 93. Marx states that 'the sonata completes what the fourth and fifth rondo forms have begun'.

*Satz*, a closed musical statement that forms the primary or secondary theme and *Gang,* a transitional passage that is motion oriented and lacks closure. In his treatise, he spends a huge portion focusing on the exposition, explaining the interaction between *Satz* and *Gang* and avoids the terms development and recapitulation. Instead, he prefers to label them as 'second part' and 'third part' because 'the names seem less than exact (the third part is in no way a mere reprise or repetition and development takes place in all parts').[239]

Between Beethoven and Chopin

Beethoven and Chopin handled the sonata form differently. An obvious area of difference is in how they handled the transition between the exposition and development sections. Before proceeding further into this discussion, it is important to note that the exposition repeat sign of Op. 35 has caused huge debates among analysts and writers for the past decades.[240] This conflict was caused by the *positioning* of the repeat sign, whether it indicates a return to Bar 1 (as reflected in the London and Paris first editions of the work) or Bar 5 (as reflected in the Leipzig edition). In modern authoritative editions of Op. 35 this controversy remains: the Ekier edition places the repeat sign in Bar 1, while in the Paderewski edition it is placed in Bar 5. As a result of such divergent views in scholarship, performers tend to decide for themselves where the repeat sign should be placed according to their own artistic tastes. [241] In international competitions, such as the Chopin International Competition held in Warsaw, both versions are accepted by the panel.

In general, after the exposition repeat, Beethoven and Chopin created transition materials differently in order to move to the development section. Modern sonata theorists advocate that 'whether or not C-modules are present, the final cadence of the exposition will generally be a perfect authentic cadence in the secondary key'.[242] This is in line with how Beethoven constructs his final cadence for the exposition.

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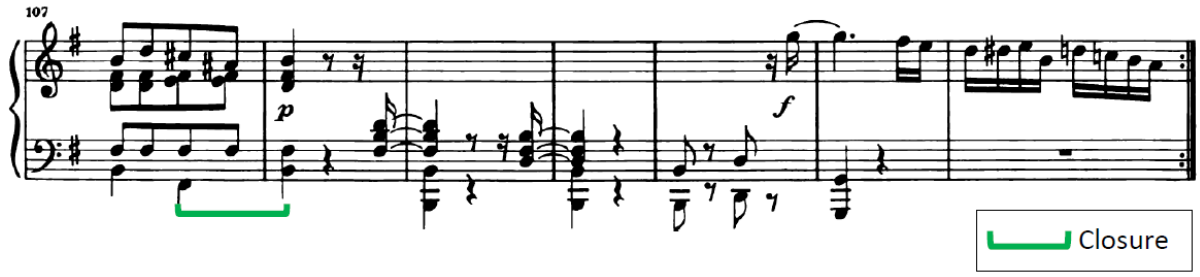
[239] Ibid, 94

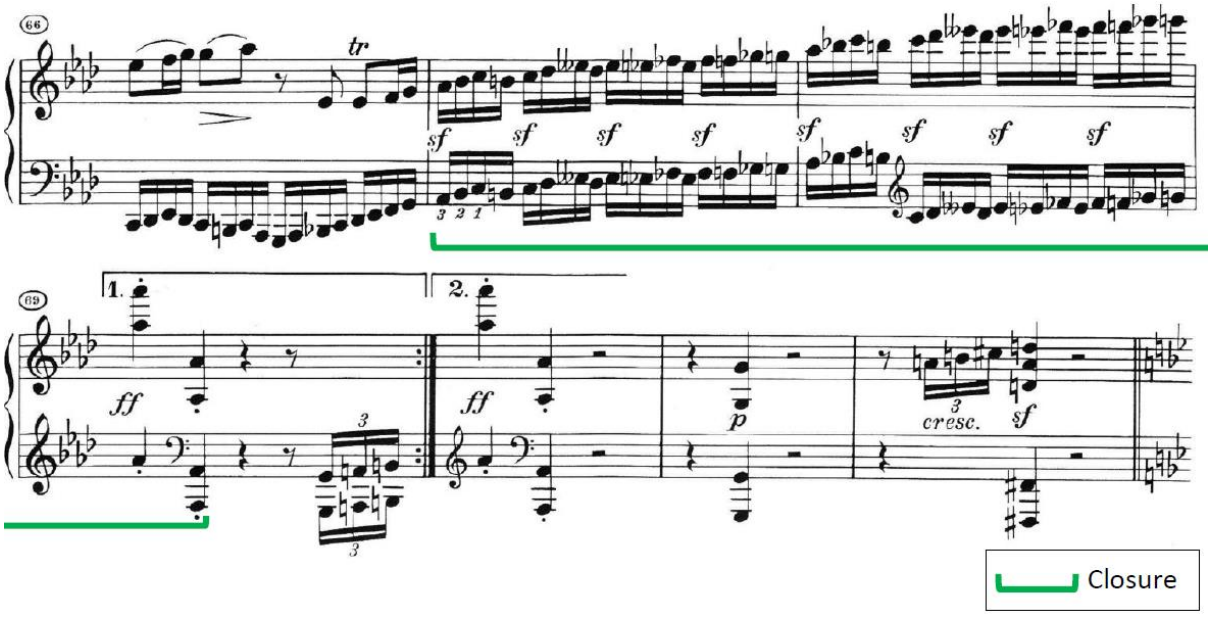
[240] They include Charles Rosen, Anatole Leikin, Edward T Cone and Jeffrey Kallberg. Rosen, *The Romantic Generation*, 279-282. Anatole Leikin, 'Repeat with Caution A Dilemma of the First Movement of Chopin's Sonata op. 35' *The Musical Quarterly* Vol 85 Issue 3 (Fall 2001): 568–582. Edward T Cone, 'Editorial Responsibility and Schoenberg's Troublesome Misprints' *Perspectives in New Music* Vol 11 No 1 (1972): 65. Jeffrey Kallberg, *Chopin at the Boundaries: Sex, History and Musical Genre* (Cambridge, Mass.: Harvard University Press 1996), 287.

[241] While most performers now choose to perform the repeat sign from Bar 1, there are some who still start from Bar 5 or omit the repeat altogether. At the 2010 Chopin International Competition, Claire Huangci for instance chose to play the repeat from Bar 5. Japanese pianist Aimi Kobayashi has always omitted the repeat of this exposition in her performances of Op. 35.

[242]James Hepokoski and Warren Darcy, *Elements of Sonata Theory: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata* (Oxford: Oxford University Press, 2006), 18.




Example 3.6 Beethoven Piano Sonata Op. 31 No. 1/I Bars 103-16[243]

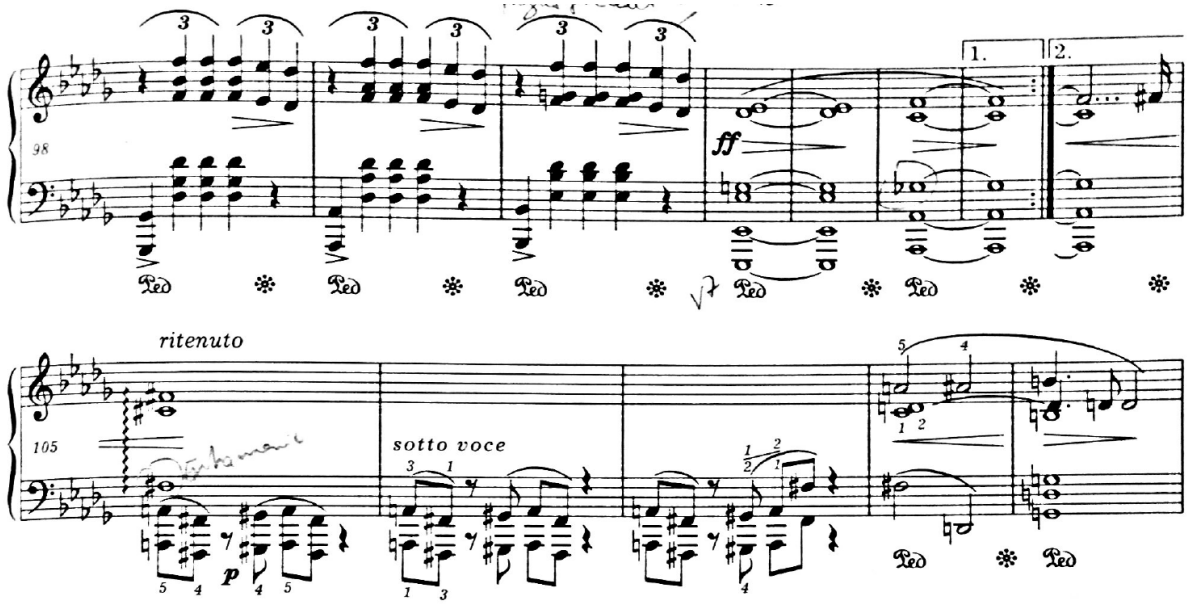



Example 3.7 Beethoven Piano Sonata Op. 111/I Bars 66-71[244]

In example 3.6, from the G major Piano Sonata Op. 31 No. 1, Beethoven finishes the exposition section with a perfect authentic cadence (PAC) in B minor, the key of the secondary theme. Because of the presence of this PAC, a sense of closure is created for this section. This closure is further reinforced by the following two B minor chords in the bass, and a crotchet rest. At bar 111, Beethoven then uses the notes B and D (found in the chords of both B minor and G major) to create a link into the development section. In example 3.7, from the C minor Piano Sonata Op. 111, Beethoven constructs a sequential scale-like pattern leading to the affirmation of A♭ major in bars 69 and 70. As in the previous example, Beethoven ends this closing module with a PAC. Again, because the secondary theme is composed in the submediant key of A♭ major, by ending in its tonic, the exposition

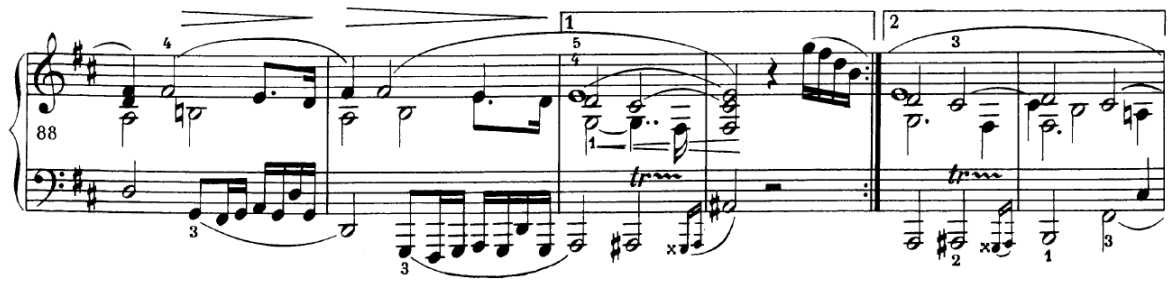
[243] Ludwig van Beethoven, *Klaviersonaten Band II* edited by Hans Schmidt (München: G. Henle Verlag, 1976), 54.
[244] Ibid, 312.

achieves a sense of closure before continuing to the development section. In contrast, Chopin's sonatas are not composed with such a clear demarcation of boundaries.

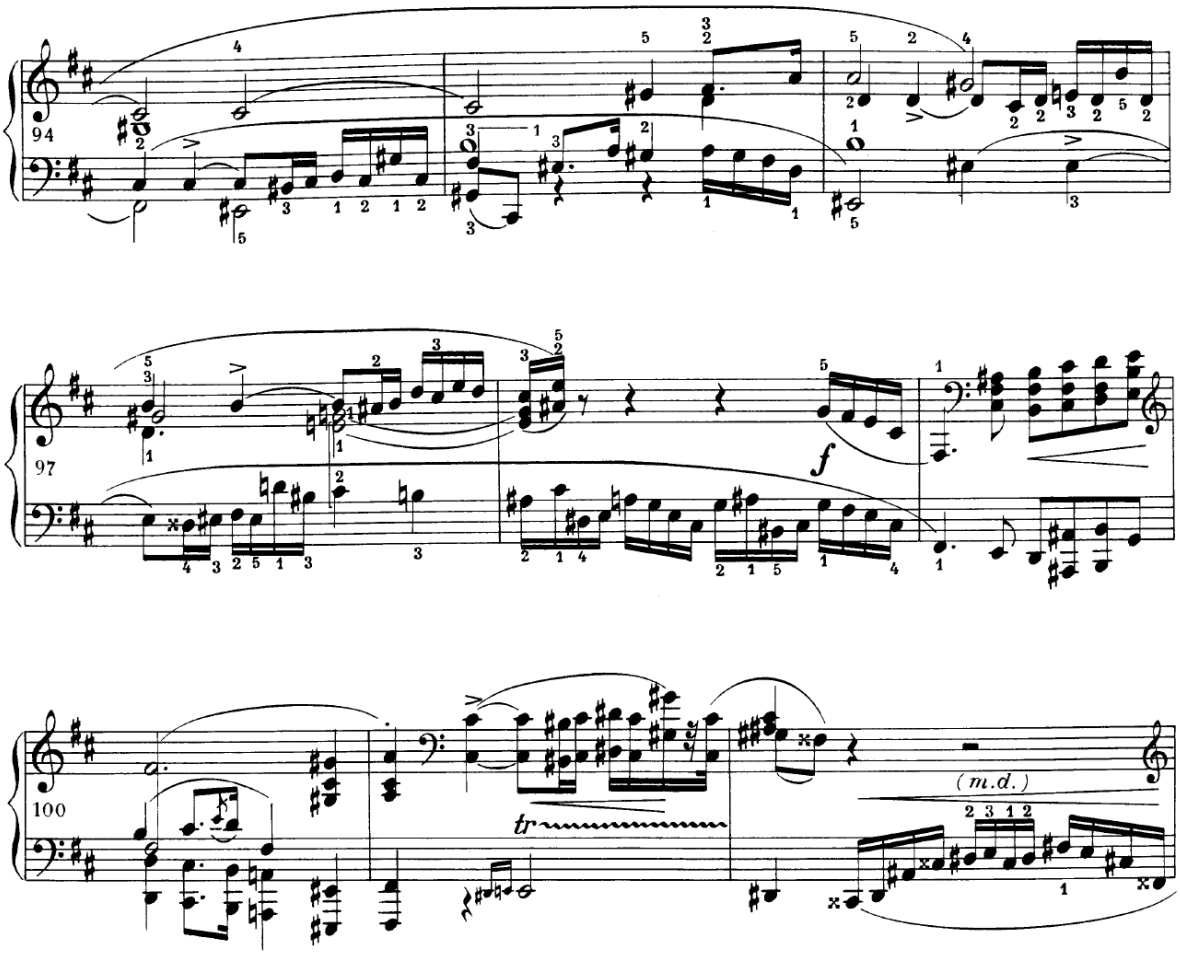



Example 3.8 Chopin Op. 35/I Bars 98-109[245]

In bars 98-100 of the above example, after three momentarily victorious proclamations in the closing module, Chopin does not proceed to finish this section with a PAC in the tonic key of the secondary theme, D♭ major. The absence of a PAC at the end of this closing module creates a smooth transition link that connects the narrative of the exposition to the development section, a technique that we will consider again in the analysis of Op. 58. This refusal of harmonic closure joins the exposition and development sections into a continuous unit rather than a block of three sections linked through thematic transformation, which would be typical of a generic, classical handling of a sonata first movement form. Whereas Chopin conceives the sonata form as a linear progression, Beethoven almost always gives his exposition sections a firm sense of closure through the use of a PAC at the end of the closing module.




[245] Chopin, *Sonaty*, 15




Example 3.9 Chopin Op. 58/I Bars 88-102[246]

In Op. 58, the development begins at the fourth beat of bar 98 (example 3.9) where Chopin recalls the initial opening statement of the exposition.[247] The preceding bars are then constructed as a link to bring the tonal centre of the closing module from D major back to F# minor through contrapuntal procedures. Not only is there an absence of a PAC between the exposition and development sections, Chopin also adds 5 bars to blur the boundaries between these sections. In Andrew Davison's analysis, he explains that the 'five-measure transitional link […] lends the effect of C [closing module] lingering briefly before giving way to the authoritative opening of the second rotation proper'.[248] It is therefore evident that Chopin's construction of materials allows for a greater

[246] The Paderewski edition has been used in this example because of my reference to Andrew Davis' analysis which also uses the same edition in his analysis of Chopin's Op. 58.
[247] Andrew Davis suggests that the second rotation begins in proper at bar 99, however this phrase starts from an upbeat of the previous bar, bar 98, rather than the first beat of bar 99. Andrew Davis, 'Chopin and the Romantic Sonata: The First Movement of Op. 58' *Music Theory Spectrum* 36 (2014), 288.
[248] Ibid.

sense of fluidity between sections. Such an analysis demonstrates that the traditional Germanic model is a problematic point of departure in examining Chopin's approach to the sonata.

Because Marx's treatise is based solely on Beethoven's music, Katharine Ellis argues that it is 'predicated on the notion of German superiority as measured against Italian facility and French frivolity'.[249] As a result, beneath Marx's treatise is a 'profound attempt to understand the motivation of musical style in the age of Beethoven,' making music comprehensible through form and not forgetting the propagation of German superiority.[250] It is highly likely that any sonatas written by a composer such as Chopin judged according to these criteria will be found wanting or incompetent. While this treatise is important from a pedagogical perspective, I contend that it would be inappropriate to use it as a basis for the reception and criticism of later sonatas such as those written by Chopin; this will result in conceiving them as incompetent for these works were written with different priorities in mind.

Analytical writings on Chopin's sonatas, since the 1920s through to the 1990s, have nonetheless tended to follow this trend of intellectual justification through perceiving them as being systematically worked out and sketch-based. Published in 1926, Schenker's chapter on 'organic structure in sonata form' offered another way of looking at sonatas. In his opposition to Marx's treatise, Schenker contended that the element of improvisation is lacking in theories formulated during the nineteenth century. In Schenker's words:

> [The construction of the sonata] cannot be developed in an artificial way, which is to say that only what is composed with the sweep of improvisation [aus dem Stegreif] guarantees unity in a composition. Therefore, in order to express the general idea more clearly, one should add to the concept of sonata form that the whole must be discovered through improvisation if the piece is to be more than a collection of individual parts and motives in the sense of a schema.[251]

Despite gaining recognition as a music theorist through his development of graphic analysis, Schenker's ideas concerning Sonata and improvisation have often gone unnoticed. Analytical writings on Chopin's Op. 35, as I will demonstrate in the next section, have leaned towards the search for thematic affinity through a limited procedure of score-based analysis.

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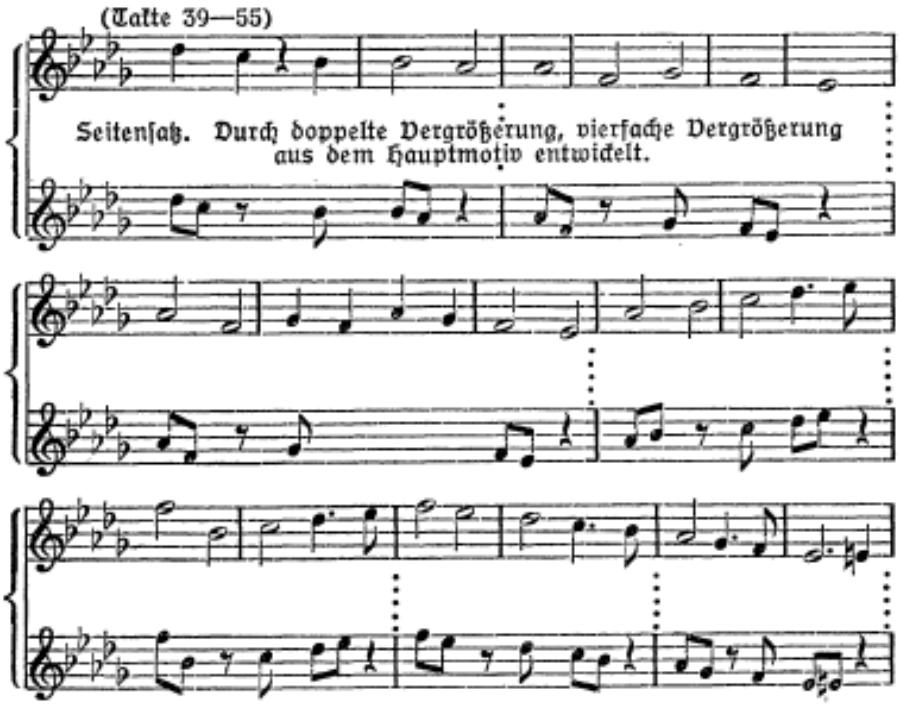
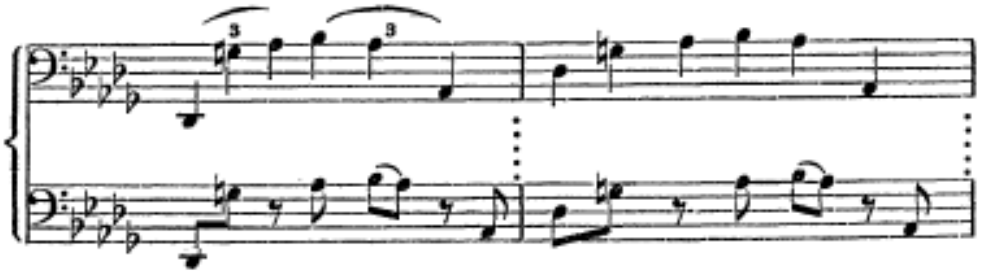
[249] Katharine Ellis, 'The Limits of Seriousness: Piano Sonatas in 1840s Paris' in *Chopin's Musical Worlds: 1840s* edited by Magdalena Chylinska, John Comber and Artur Szklener, translated by John Comber (Warszawa: Narodowy Instytut Fryderyka Chopina, 2008), 12.
[250] Scott Burnham, 'The Role of Sonata Form in A. B. Marx's Theory of Form' *Journal of Music Theory* Vol. 33, No. 2 (Autumn, 1989), 267.
[251] Heinrich Schenker and Orin Grossman, 'Organic Structure in Sonata Form' *Journal of Music Theory* Vol 12 No. 2 (1968): 166.

Analytical Writings

In 1921, Hugo Leichtentritt's monumental two-volume work the *Analyse der Chopin'schen Klavierwerke* demonstrated how each motive is an outgrowth of the first subject through rhythmic change to create a sense of unity, citing Beethoven's Op. 81a as a precursor.[252]

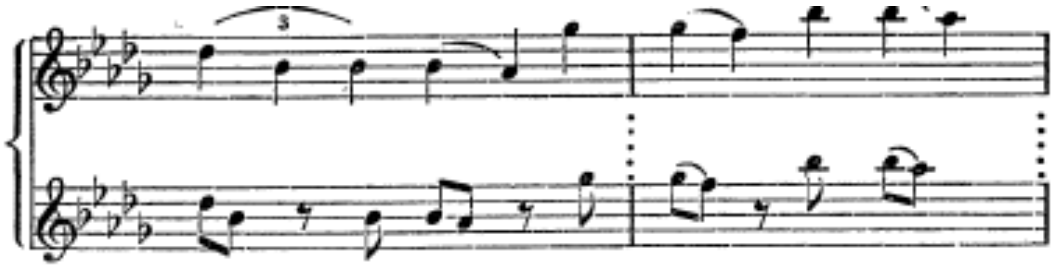



Example 3.10 Leichtentritt's Analysis of Chopin Op. 35/I Bars 39-55[253]

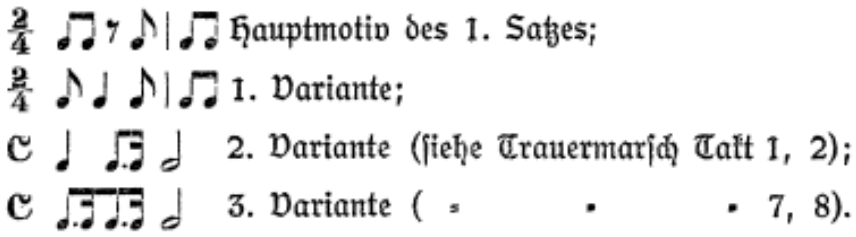


Example 3.11 Leichtentritt's Analysis of Chopin Op. 35/I Bars 57-58[254]

[252] Leichtentritt, *Analyse der Chopin'schen Klavierwerke Vol 2* (Berlin:Max Hesse, 1921-1922), 212.
[253] Ibid.
[254] Ibid.



Example 3.12 Leichtentritt's Analysis of Chopin Op. 35/I Bars 81-82[255]

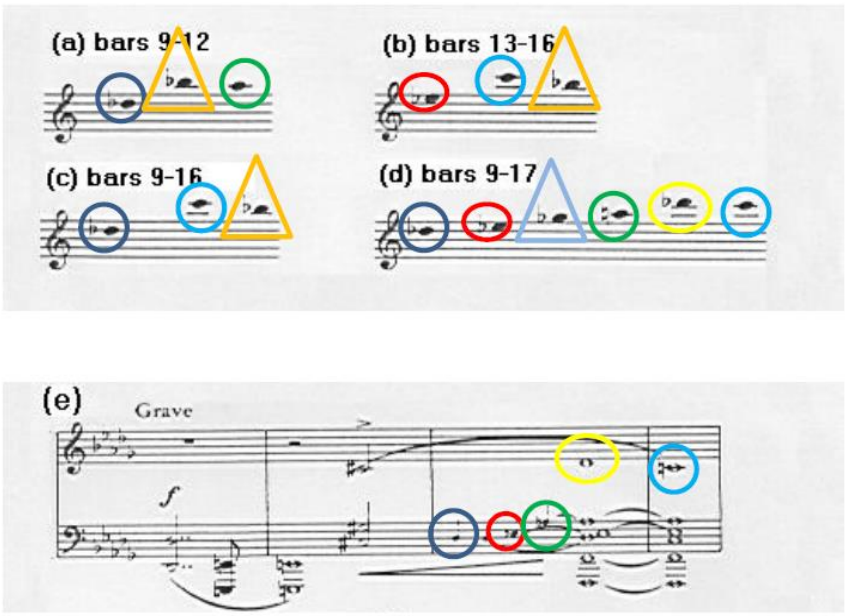



Example 3.13 Leichtentritt's Analysis[256]

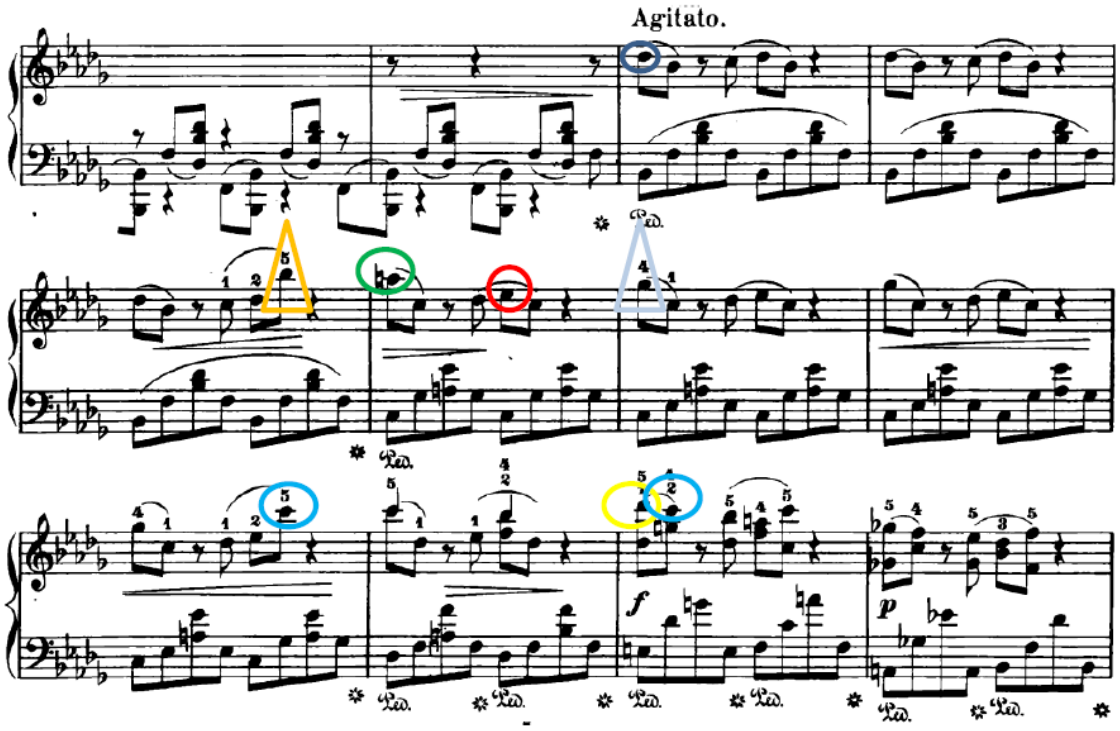
Although the above examples 3.10-3.12 aim to illustrate that the motives of the secondary theme and its accompaniment are related to the primary theme, the argument is not presented convincingly. The primary theme is composed in a rhythm that governs the entire section, while the secondary theme is presented with much more fluidity and many more changes - Leichtentritt's analysis has failed to account for such differences. Consequently, with example 3.13, to suggest that the rhythm of the Funeral March is a variation of the primary theme seems a little far-fetched.

Building on Leichtentritt's work, Rudolph Réti's investigation discovered even more thematic connections within each movement. He started off by suggesting the importance of the introductory four-bar phrase as a basic unit to the working of the first theme.

[255] Ibid, 213.
[256] Ibid, 228.




Example 3.14 Réti's Analysis of Chopin Op. 35/I Bars 1-17[257]



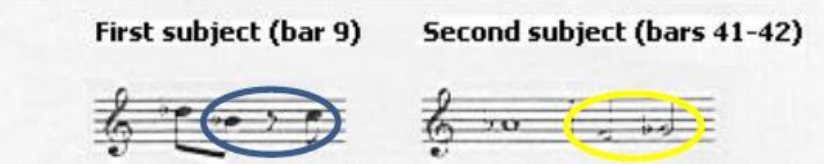

Example 3.15 Chopin Op. 35/I bars 7-18[258]

[257] Music examples that reflect Réti's analysis are taken from Réti, *The Thematic Process*, 298-308 and adapted by myself for the purpose of this chapter.

[258] Not to be confused with my haptic analysis in Chapter 6, the analysis in this chapter is done using a different edition. Frédéric Chopin, *Complete Works for the Piano Volume 11: Sonatas* edited and fingered by Carl Mikuli, historical and analytical comments by James Huneker (New York: G. Schirmer, 1895), 6.

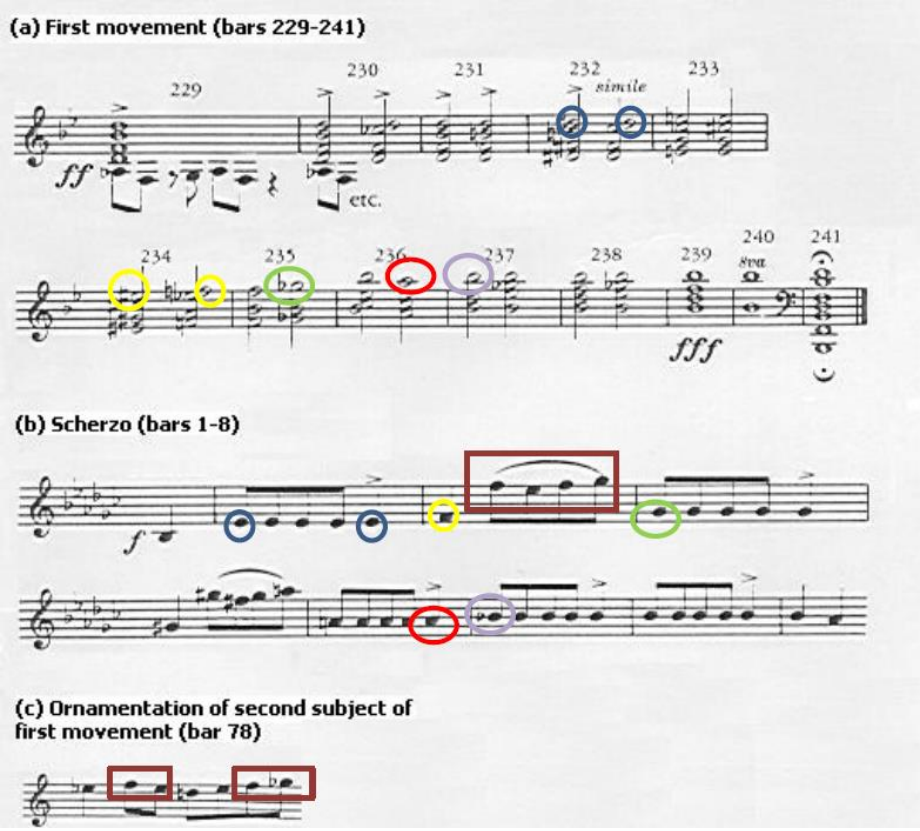
Réti's analysis suggests that the basic shape of the melody in the primary theme is derived from the grace notes of bar 3 and the treble of bars 3-4 (see example 3.15). He contends that such figurations, 'so often described as the archetype of purely emotional outpouring, are firmly rooted in structural ground'.[259] Nonetheless, the logic behind Réti's process of identifying important notes is not entirely clear because a mapping of the notes he has identified in his analysis, onto the primary theme of Chopin's Op. 35 (as exemplified by example 3.15) creates a scattered rather than a systematic pattern. Although it is arguable that Réti is concerned only with the primary shape of the motive, this reductive method of searching for an overarching thematic unity is not only clumsy but also problematic for the analysis of Chopin's sonata, since it considers and prioritises the construction of the sonata solely from a formal and intellectual perspective.

[259] Réti, *The Thematic Process*, 302.




Example 3.16: Réti's Analysis of Chopin Op. 35/I

By observing that the first and second subjects point to a similar primary shape of a falling third and a rising second (example 3.16), Réti goes on to prove his point of thematic affinity within the movement. Such a method of analysis however, draws us to an earlier critique of Réti's work by Schenker as only 'a collection of individual parts and motives in the sense of a schema' rather than a sign of unity.[260] Réti's method of analysis is omnipresent throughout his discussion as demonstrated in the next few examples 3.17-3.22. Despite its drawbacks, I will return to Réti's analysis later in relation to my idea of monothematicism in this sonata.

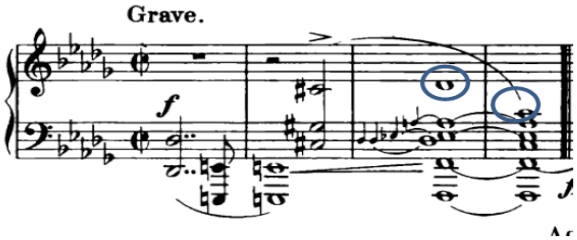



Example 3.17 Réti's Analysis

In example 3.17, Réti went further to suggest thematic affiliations between the first and second movement of Op. 35. In his opinion, the coda of the first movement sets the melodic outline

[260] Schenker, 'Organic Structure in Sonata Form', 166.

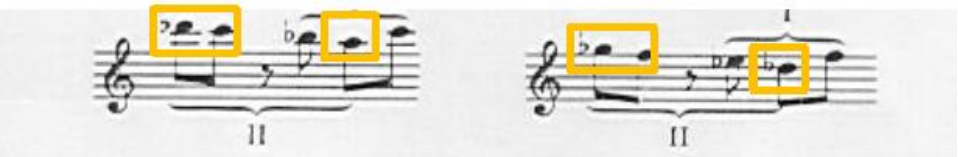
of the opening theme of the second movement. The coloured circles added to examples 3.17a and 3.17b, and the brown boxes added to examples 3.17b and 3.17c, illustrate the thematic affiliations proposed by Réti between these two movements. Although all of the coloured circles found in example 3.17a can be mapped through example 3.17b, this mapping has not been carried out in a systematic manner. In his attempt to demonstrate thematic affiliations between motives, Réti resorts to choosing notes that can be found in both motives while ignoring the notes that do not fit.




Example 3.18 Chopin Op. 35/I Bars 1-4[261]

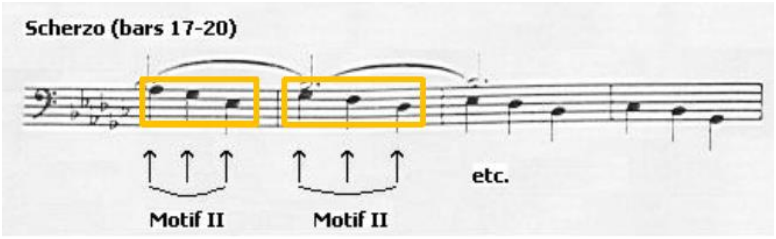

Example 3.19 Réti s Analysis of Chopin Op. 35/II

Réti's identification of thematic affinity, through similarities between two notes found in the first movement and second movement (a falling second in example 3.18, D♭ – C, and in example 3.19, C- B♭), is also questionable as it suggests that any falling second interval could also be considered to have thematic affinity. Any composers using the tonal system will not be able to avoid such harmonic resolutions as they are embedded within the musical syntax of tonal music.

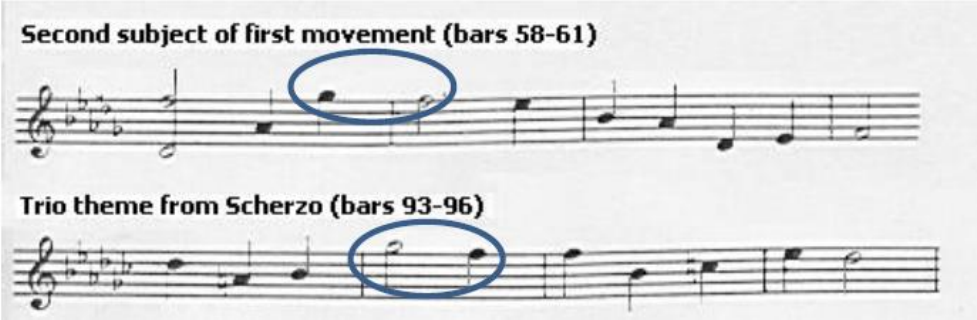



Example 3.20 Réti's Analysis of Chopin Op. 35/I Bars 17-18

[261] Chopin, *Sonatas,* 6.

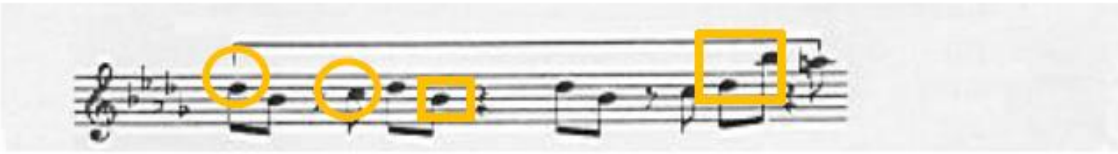



Example 3.21 Réti‘s Analysis of Chopin Op. 35/II

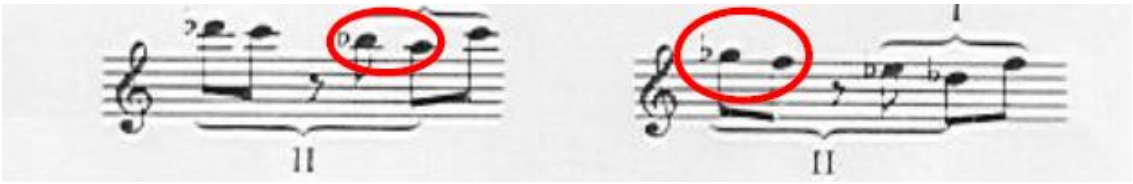



Example 3.22 Réti’s Analysis

Similarly, Réti’s analysis as illustrated in examples 3.20-3.21 with the boxes in yellow, and example 3.22 with the circles in blue, demonstrate only that the same notes have been used, rather than that a purposeful transformation of thematic material has taken place.



Example 3.23 Réti’s Analysis of Chopin Op. 35/I Bars 9-11

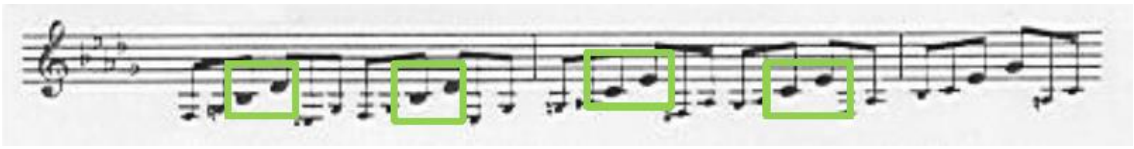



Example 3.24 Réti’s Analysis of Chopin Op. 35/I Bars 17-18

Example 3.25 Réti’s Analysis of Chopin Op. 35/III Bars 3-4 and 6-7

Réti's analysis argues that the opening theme of the third movement is derived from the primary theme of the first movement, demonstrated by the yellow and red rings (and ignoring the yellow boxes marked in examples 3.23-3.25). This observation is again questionable if it relies solely on finding places where the same notes have been used.

Example 3.26 Réti's analysis of Chopin Op. 35/I Bars 9 and 13



Example 3.27 Réti's Analysis of Chopin Op. 35/IV Bars 1-3

Concerning the finale, Réti asserts that 'the design of the Finale is so strikingly in accord with the idea of the Allegro theme that it really is surprising that at least *this* analogy was not noticed long ago'.[262] While his analysis might suggest some thematic affinity and unity between the movements, it yields only limited conclusions as it reduces the tracing of thematic development to a paper exercise. By overly prioritising one parameter of composition, and by not thinking in terms of the physical aspect of composition, Réti seems to be engaging in an analytical project that is very limited. A quote from Meyer's *Explaining Music* expresses this neatly:

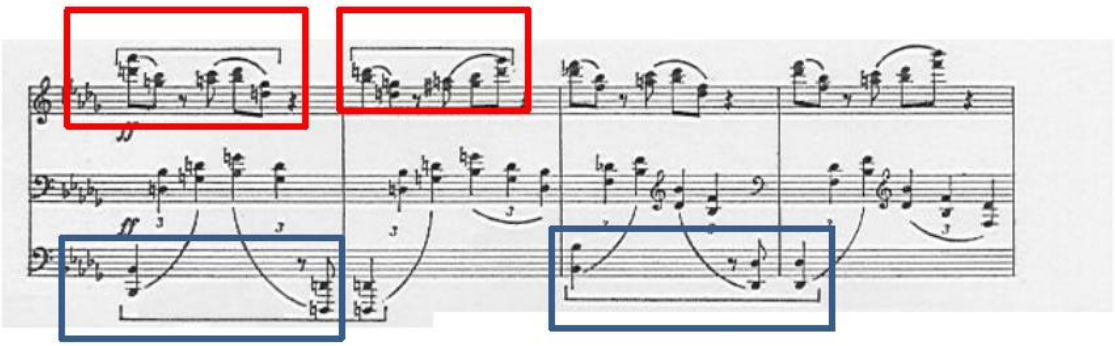
> He does so because in his view thematic conformance not only creates coherence and articulates structure, but is a necessary and sufficient cause of musical unity and hence of aesthetic value […Meyer goes on to quote Réti] "in the great works of musical literature the different movements of a composition are connected in thematic unity- a unity that is brought about not merely by a vague affinity of mood but by forming the themes from one identical musical substance"[…] his position virtually compels him to discover the kind of relationship he has hypothesised.[263]

With a later generation of scholars, starting from the 1960s, a similar approach can be seen in the writings of Alan Walker, Józef Chomiński and Anatole Leikin. In their score-based analysis of the work, further instances of thematic unity have been observed.

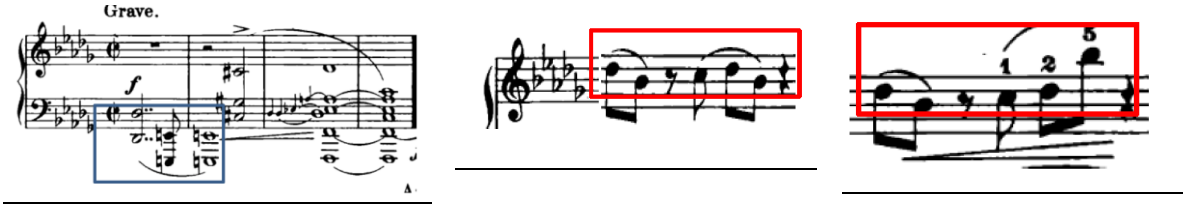
Walker's most relevant observation of unity, in his chapter entitled 'Chopin and Musical Structure', is exemplified in the development section of the first movement. He argues that the

[262] Réti, *The Thematic Process*, 306.
[263] Leonard Meyer, *Explaining Music: Essays and Explorations* (Berkeley: University of California Press, 1973), 64.

development section has been 'based exclusively on the first subject' which Chopin has telescoped from the opening figure of the entire sonata.[264]

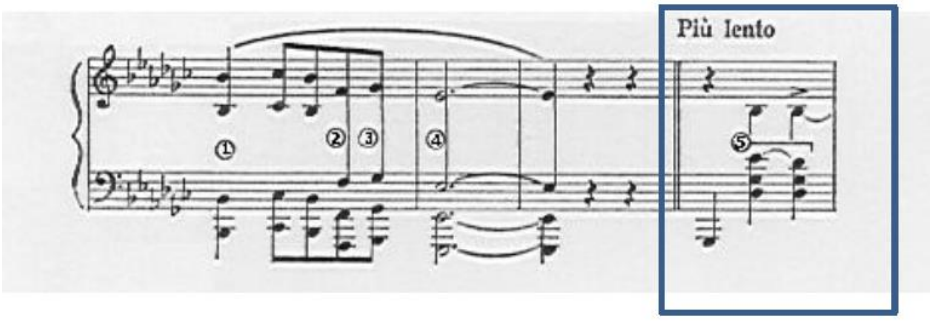


Example 3.28 Walker's Analysis of Chopin Op. 35/I Bars 137-140[265]



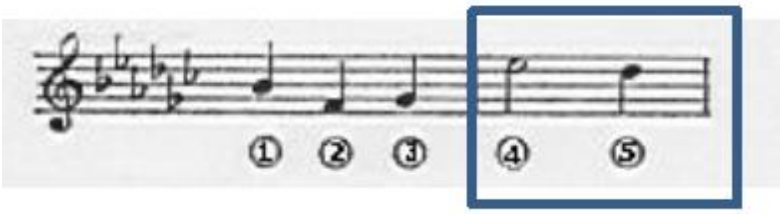

Example 3.29 Chopin Op. 35/I Bars 1-4, 9 and 11[266]

In the next movement, however, Walker pursues an arguably more subjective line of investigation by stating that 'the trio theme not only looks back to the scherzo: it also looks forward to the trio of the slow movement.'[267]

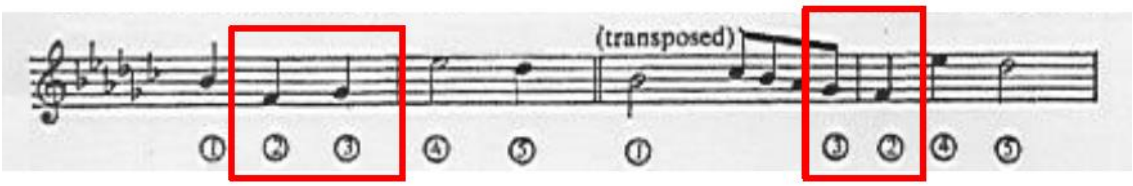



Example 3.30: Walker's Analysis of Chopin Op. 35/II Bars 78-81[268]

[264] Alan Walker, 'Chopin and Musical Structure' in *Frederic Chopin: Profiles of the Man and the Musician* edited by Alan Walker (London: Barrie and Rockliff, 1966), 242.
[265] Ibid.
[266] Analysis my own, adapted from Chopin, *Sonatas,* 6.
[267] Walker, 'Chopin and Musical Structure', 245.
[268] Ibid.



Example 3.31 Walker's Analysis of Chopin Op. 35/II Bars 85-86[269]




Example 3.32 Walker's Analysis of Chopin Op. 35/II Bars 85-86 and III Bars 31-32[270]

This 'looking back to the scherzo' involves not only materials from the ending bars of the scherzo, but also the opening bars of the trio *Più Lento*. Similarly, to decipher that the trio of the Funeral March has been derived from the trio of the scherzo, one has to first transpose it up a perfect fifth and then switch the F-G♭ around (see example 3.32 boxes in red).[271] The clumsiness of this process of searching for thematic affinity demonstrates the problem with applying score-based analysis to the music of Chopin, partly because his construction of the sonata does not rely wholly on the techniques of thematic transformation, but also on haptic considerations. Furthermore, this is true for other composers, even in the works of Beethoven, as has been demonstrated by Carl Dahlhaus:

> The method to deduce the evolution of a whole movement from a handful of notes or intervals is clumsy, in as much as, for the sake of the omnipresence of the 'cell', the analyst must accept so great a number of transformational possibilities that virtually everything can be derived from everything else.[272]

And later by Charles Rosen:

> The permutation of 12 notes of the chromatic scale may provide a huge number of different tunes but the three notes of the tonic triad will only give a much more modest result, and that is why so many melodies of tonal music must necessary resemble each other in their basic structure […] (this is what makes the popular activity of exposing the fact that composer X borrowed a

[269] Analysis my own, adapted from Ibid.
[270] Analysis my own, adapted from Ibid.
[271] Another trace of unity he demonstrates lies between the first subject of the first movement and the opening bars of the funeral march: 'The melodic contour of the first few bars of the Funeral March is in fact that of the first movement's first subject in strict retrograde motion.' Ibid, 246.
[272] Carl Dahlhaus, *Ludwig van Beethoven: Approaches to His Music* (Oxford, Oxford University Press, 1991), 91.

> tune from composer Y or Z so easy and yet so tiresome and meaningless: every tonal motif automatically resembles hundreds of others).[273]

This accusation can be levelled at Walker's analysis of the sonata as similar resemblances can be found in any tonal works. From these three scholars, one realises that such analysis has not yielded convincing results because it is a very limited way of searching for thematic unity in Op. 35, lacking references to or considerations of historical context or of Chopin's role as a pianist. By stressing the organic unity of harmonic and thematic structure, analysts have, over the years, prioritised the placement of Chopin within a grand historical narrative over the scrutiny of his creative individuality and pianism. Nonetheless, the demonstration of an intellectual component to Op. 35 was crucial in the twentieth century, so as to confer canonical status to Chopin. Perhaps because Chopin at a mature age was better able to incorporate his haptic procedures within the sonata structure of Op. 58, this work has not created such a split field amongst analysts. Even so, there is still a tendency to place Chopin alongside Austro-German traditions. Jim Samson for instance, in his monograph *The Music of Chopin*, concluded that the B minor sonata 'takes a step closer to the German tradition' while the third movement suggests a 'brooding quality of North German lyricism'.[274]

In this chapter, I have demonstrated a selection of literature, between the 1920s and 1960s, on Chopin's Op. 35 where analysts have tried to rescue the reputation of his sonata through score-based analysis. Very often, their methods reduced the construction of Op. 35 to a paper exercise and applied criteria that were not entirely relevant to Chopin's compositions. In the following two chapters, I will devote a section to Chopin's own time. In so doing, I reconsider nineteenth-century aesthetics and pianistic trends relating to genre, improvisation and virtuosity that are relevant to his handling of the sonata genre.

[273] Charles Rosen, *Music and Sentiment* (New Haven and London: Yale University Press, 2010), 20.
[274] Samson, *Music of Chopin*, 136.

Chapter 4: The Issue of Genre

Touted as a 'champion of the miniature', Chopin wrote only three piano sonatas, Op. 4, Op. 35 and Op. 58, and five other works in the extended sonata form: the Piano Trio Op. 8, two piano concertos Op. 11 and Op. 21, Allegro de Concert Op. 46 and the cello sonata Op. 65. In comparison to his 57 mazurkas, 16 polonaises, 18 waltzes, 18 nocturnes, 27 etudes and 24 preludes, his three piano sonatas inevitably seem negligible in number.[275] Based on the reception of his miniatures, the reception of Chopin's sonatas again pales in comparison. A closer inspection nevertheless reveals that what his sonatas and miniatures share is a preponderance of themes relating to popular genres. In some instances, such as the mazurka of Op. 35/II, this takes the form of a repeated rhythmic motive, whereas with the nocturne of Op. 58/I, the link is textural.[276] In the finale of Op. 58, despite composed in a 6/8 meter, the emphasis on the first and third beats of every half bar creates a galloping rhythm.[277] Likewise, in the Etude Op. 25 No. 3 in F major, despite its 3/4 meter, the dotted rhythm on each beat creates a galloping rhythm. For Chopin, his references to other genres took various forms including rhythmic and textural features. In the following table I have listed sections of both sonatas that take on characteristics of other genres.[278]

[275] Although the etudes were published across three different opuses and the preludes published across two different opuses, according to performance tradition of that period, the etudes or preludes were rarely performed in their entirety. Instead, they were sometimes performed as individual, standalone pieces or grouped together separately to form a smaller set.

[276] Leikin in his study on Chopin Op. 35 calls the second movement a "transformed mazurka". He writes 'But while Beethoven's Scherzo is a transformed minuet, Chopin's is a transformed mazurka, with all the characteristics jumps, stamps and heel clickings on the third or the second beat'. See Leikin, 'Sonata', 170. The accompaniment in the secondary theme of Op. 58/I is very similar to the D♭ major nocturne Op. 27 and C# minor nocturne, Op. Post.

[277] Jeremy Nicholas calls this movement a 'galloping rondo that brings the work to a thrilling conclusion'. Jeremy Nicholas, Chopin His Life and Music (Naperville, Ill.: Sourcebooks, 2007), 225

[278] A separate article by Mieczysław Tomaszewski has identified each movement of Op. 58 with different genre attributions. 'The first and last movements are marked by the character of a ballade, the second is a scherzo, and the third is a nocturne'. Mieczysław Tomaszewski, 'Piano Sonata in B minor' http://en.chopin.nifc.pl/chopin/composition/detail/id/122 (accessed 29th April 2018).

| | Op. 35 | Op. 58 |
|---|---|---|
| First Movement (Secondary theme) | Nocturne | Nocturne |
| Second Movement | Mazurka, Waltz | Etude, Chorale |
| Third Movement | March, Nocturne | Nocturne |
| Fourth Movement | Etude | Gallop |

Table 4.1 Genres present in Chopin's Sonatas

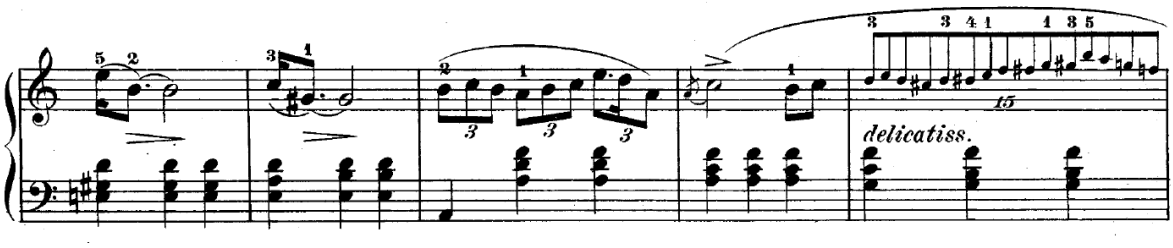
For the purpose of comparison, I have done likewise for his ballades and scherzos in the tables below.

| Ballade No. 1 | Waltz |
|---|---|
| Ballade No. 2 | Sicilienne |
| Ballade No. 3 | Waltz |
| Ballade No. 4 | Barcarolle |

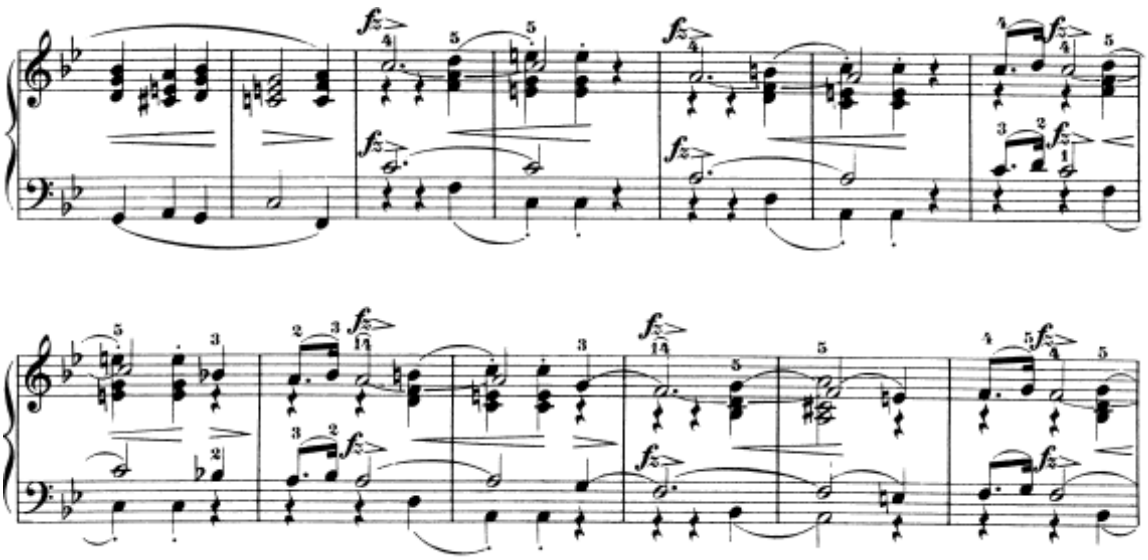
| | Middle-section |
|---|---|
| Scherzo No. 1 | Polish Lullaby |
| Scherzo No. 2 | Waltz-like |
| Scherzo No. 3 | Chorale (Bars 155-191) |
| Scherzo No. 4 | Mazurka or Kujawiak |

Table 4.2 Genres present in Chopin's Scherzos, Ballades

Based on my evaluation of Chopin's large-scale works, I have categorised the various genres found.[279] Such mixing of genres is omnipresent in Chopin's compositions. While it is also present in the works of other nineteenth-century composers, Chopin arguably makes this a constant throughout almost all his compositions, and in some instances, such as in his Polonaise-Fantasy Op. 61, he synthesises them into a new hybrid.[280] His smaller works also exhibit a mixing of genres but do not create a new hybrid as in Op. 61.




Example 4.3 Chopin Mazurka Op. 17 No. 4 Bars 11-15[281]



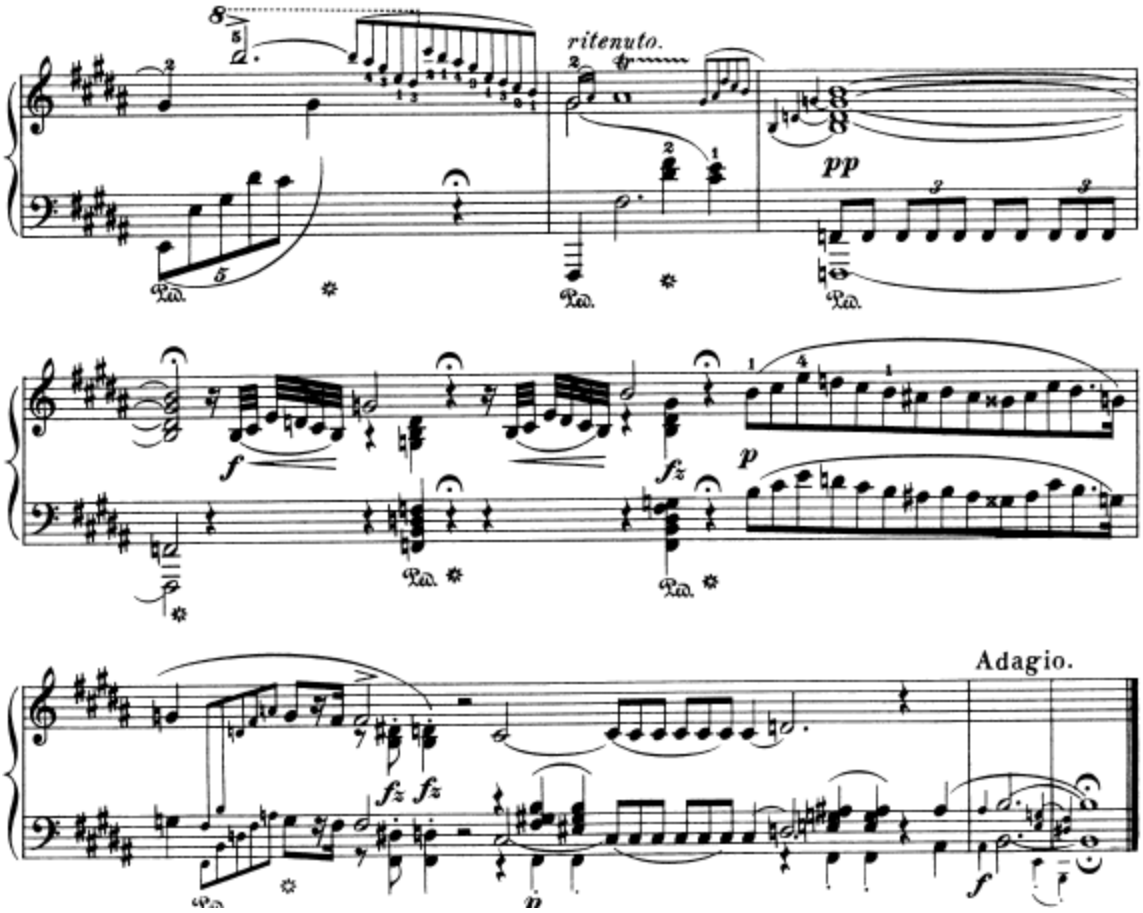
Example 4.4 Chopin Nocturne Op. 15 No. 3 Bars 119-131[282]

[279] For the ballades alone, Samson has neatly categorised the various genres found in the ballade. See Figure 14 of Jim Samson, *Chopin: The Four Ballades* (Cambridge: Cambridge University Press, 1992), 74. Large-scale works for the purpose of this chapter refers to Chopin's sonatas, scherzos and ballades.

[280] Schumann, for instance, in his sonatas 'uses the small forms as the basis of a large scale-work'. See David Ferris, *Schumann's Eichendorff Liederkreis and the Genre of the Romantic Cycle* (Oxford: Oxford University Press, 2000), 75.

[281] Frédéric Chopin, *Complete Works for the Piano Volume 2 Mazurkas* edited by Carl Mikuli (New York: G. Schirmer, 1894), 29.

[282] Frédéric Chopin, *Complete Works for the Piano Volume 4* edited by Carl Mikuli (New York: G. Schirmer, 1894), 31.




Example 4.5 Chopin Nocturne Op. 32 No. 1 Bars 60-63[283]

Chopin's Mazurka Op. 17 No. 4 contains filigree passages in the melodic line which belong to the genre of the nocturne, see example 4.3. In the next example 4.4, Nocturne Op. 15 No. 3, a mazurka characterised by a dotted rhythm and a second beat accent intrudes from bars 121 onwards.[284] Unlike his earlier nocturnes, Op. 15 No. 3 does not feature a singing melodic line or any filigree passages. Instead, it is mostly written as block chords, resembling a chorale which Chopin, in the later section (bar 89), marked 'religioso'. And more strikingly, his Nocturne Op. 32 No. 1 ends with a recitativo, see example 4.5.[285]

His large-scale works, including all his ballades, exhibit a similar creativity. For instance, his second ballade makes references to a slow waltz and a barcarolle/sicilienne, his first scherzo quotes a Polish lullaby directly and his third scherzo includes a chorale through textural allusion. Similarly, the

[283] Ibid, 45.

[284] This is an observation put forth by many Chopin scholars including Jim Samson, Jeffrey Kallberg and John Rink.

[285] James Parakilas, 'Disrupting the Genre: Unforeseen Personifications in Chopin' *19th-Century Music*, Vol. 35, No. 3 (Spring, 2012), 170. 'These changes amount to a disruption and abandonment of the nocturne genre […] the final recitative contradicts not only the narrative progress of the music to that point also the conventions of nocturnes.'

rondos of both his earlier piano concertos Op. 11 and Op. 21 display characteristics of Polish nationalism drawing from the dance rhythms of the krakowiak and the mazurka. In his later works, his Op. 44 Polonaise plays host to the mazurka in the central section, and his Op. 61 Polonaise-Fantasy, as the title suggests, combines both the gestures and dance rhythms of the polonaise within the characteristics of a fantasy.[286] Looking at these works, it is clear that Chopin has used genre as a powerful communicative tool by allowing generic referents or 'topics' to slide in and out of different contexts.

Chopin's ballades and scherzos were warmly received by critics, and there is no record of criticisms regarding their modified sonata form. In relation to Chopin's ballades, for instance, Jim Samson has shown that they are situated 'somewhere between the sonata and the fantasy.'[287] Chopin's approach to the ballade is freer than his approach to the sonata. However, when Chopin used a similar compositional process, publishing the work as a sonata, it led to criticism on the grounds of a lack of formal construction, or as mismatched movements and small forms put together 'under one roof'. As we recall an example of the early twentieth-century critique of Chopin's Op. 35 by James Hadden in the previous chapter: 'these four movements have no common life […] this sonata is not more a sonata than it is a sequence of ballades and scherzos', the logic of such critiques therefore becomes questionable.

Because Chopin does not include programmatic titles in his compositions (apart from tempo indications, score-based notations and pianistic writings) genre becomes our only clue to his idea of a work. Yet to rely solely on generic titles as clues is problematic, since the overall genre, as indicated by title, has been shown to host many other genres. In the case of his piano sonatas, the sonata genre plays hosts to multiple other popular genres, including the mazurka, waltz and nocturne. In the same study of Chopin's ballades, Samson further observed that such mixing of genres in a single work allowed Chopin to place popular genres 'in a dialogue with an autonomous art music'.[288]

Previous studies on genre have established a few basic premises. Samson's *Grove* article in particular, provides an overview of the various definitions of genre. As Samson observed, from the mid-1960s onwards, there appeared to be a shift in how genre gained meaning and created historical

[286]Beethoven's moonlight sonata Op. 27 Sonata quasi una fantasia is another example of 'hybrid works'.
[287] Samson writes, 'Far from ignoring sonata form, we need to recognise it as the essential reference point for all four ballades: the 'ideal type' or archetype against which unique statements have been counterpointed […] Indeed it has already been suggested that an important motivation for the ballades was the accommodation of sonata-based structures to an idiom derived from post-classical repertoires. An analysis which does not invoke sonata form will miss much of the forcefield which exists in this music between the exemplifying and the unique'. Later in the book, he spelled it out more explicitly: 'The Chopin ballade might be somewhere between a ballade and a fantasy.' Jim Samson, *Chopin Four Ballades* (Cambridge: Cambridge University Press, 1992), 45 and 74.
[288] Ibid, 72.

significance. He argued that no longer 'will a taxonomy of shared characteristics of itself define a genre. It is the interaction of title and content that creates generic meaning'.[289] The implied meaning is that the musical work as a standalone product, despite its genre-specific melodic features, rhythm, form and structures, does not automatically allow itself to be placed within a type of genre. It is only through 'interaction', the social contexts in which the work is being played, the reception of the work and the listening experience of the audience that the work can gain a place within a type of genre. This additional consideration of social aspects in relation to our understanding of genre from a purely musical perspective has also received attention in broader literature. Franco Fabbri defines genre as 'a set of musical events […] governed by a definite set of socially accepted rules', E. D. Hirsch and Hans Robert Jauss liken it to a 'code of social behaviour' and 'a horizon of expectation' respectively.[290] Carl Dahlhaus writes that 'genre norms correspond to listener expectations'; and more recently, Samson and Kallberg discuss genre along the lines of a contract between the composer and listener where 'the composer agrees to use some of the conventions, patterns and gestures of a genre, and the listener consents to interpret some aspects of the piece in a way conditioned by this genre'.[291]

[289] Jim Samson. 2001 "Genre" in *Grove Music Online*. 7 Mar. 2019. http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000040599.

[290] Franco Fabbri, 'A theory of Musical Genre: Two Applications' in *Popular Music: Critical Concepts in Media and Cultural Studies* edited by Simon Frith (New York: Routledge, 2004), 7. E. D. Hirsch, *Validity in Interpretation* (New Haven: Yale University Press, 1967), 93. Hans Robert Jauss, *Toward an Aesthetic of Reception* translated by Timothy Bahti (Minneapolis: University of Minnesota Press, 1982), 3-45.

[291] Carl Dahlhaus, *Schoenberg and the New Music: Essays by Carl Dahlhaus* translated by Derrick Puffett and Alfred Clayton (Cambridge: Cambridge University Press, 1987), 40.
Jim Samson, 'Chopin and Genre' Music Analysis Volume 8 No. 3 (1989): 213. Jeffrey Kallberg, *Chopin at the Boundaries: Sex, History and Musical Genre* (Cambridge, Mass.: Harvard University Press 1996), 5.

Reasons for Chopin's mixing of genres

In a discussion of Chopin's Nocturne Op. 15 No. 3, Kallberg offered an explanation for the 'striking generic amalgam' in this work.[292] Apart from being an experiment 'in the combination of seemingly un-combinable types' to 'broaden the expressive range of the genre of the nocturne', Kallberg used Chopin's Polish identity to construct a context for such a motivation in this G-minor nocturne.[293] By blending nationalistic elements into a neutral genre, Chopin articulates 'his kinship with the Polish romantic nationalists'.[294] In view of the earlier defeat of the Poles in the November uprising, the nationalistic elements in the nocturne allow Chopin to create an avenue for his listeners to sympathise with him.[295]

Nevertheless, by 1839 and 1844, the years in which Chopin began the creation of his piano sonatas, he was no longer the same Chopin that had first arrived in Paris in 1831. Following the success of his debut concert on 26th February 1832 at the Salle Pleyel, Chopin started to establish his reputation as a performer and composer, and to build his networks with publishers and the French press, making his presence felt among the Parisian *monde*.[296] He further secured himself another source of income, by giving piano lessons to members of the *nouveau riche*.[297] Even so, after having established his reputation in the years to come, Chopin's piano sonatas still witnessed the same sort of treatment where a dominant genre is filled with or plays host to other popular genres.

Clearly then, Chopin's blending of genres is almost always present throughout his career, whether in times of upheavals or not. There is a very neat and linear display of facts here by both historians Kallberg and Levin to suggest that in Chopin's earlier works, the blending of genres is down to nationalism or 'capitalising on the French sympathy for the Polish cause'. [298] As evident in his later works, such blending is still present, which arguably is not due to Chopin's patriotism but perhaps working with forms that he is more comfortable with before extending them to a larger scale as in the case of the sonata. Ultimately, this also forms part of his compositional technique. Other Chopin scholars have posited the reason behind this blending of genres in his piano sonatas as Chopin's effort

[292] Ibid, 26.
[293] Ibid, 27.
[294] Ibid, 28.
[295] Ibid, 29. A similar observation is captured by Levin in her dissertation: 'The mazurkas and polonaises, for example, may well represent Chopin's engagement with his national identity, but they also capitalised on the French sympathy for the Polish cause, providing a hint of the exotic and reinforcing Chopin's own foreign status'. Alicia Levin, 'Seducing Paris: Piano Virtuosos and Artistic Identity, 1820-1848' (PhD Dissertation University of North Carolina at Chapel Hill, 2009), 138.
[296] Jolanta T. Peckaz, 'Chopin and Parisian Salons' in *Chopin's Musical Worlds: The 1840s* edited by Magdalena Chylinska, John Comber and Artur Szklener (Warszawa: Narodowy Instytut Fryderyka Chopina, 2007), 52.
[297] Ibid.
[298] Levin, 'Seducing Paris', 138.

to 'renovate' or 'experiment with' the traditional sonata structure.[299] From my perspective, I am inclined to further argue that by embedding small forms within a large-scale sonata genre, Chopin allowed himself to put in place haptic procedures that he had discovered through his composition of smaller forms. The composer György Ligeti recalled his own process of composing etudes in which he found parallels with Chopin's compositions. To quote him at length:

> I lay my ten fingers on the keyboard and imagine music. My fingers copy this mental image as I press the keys, but this copy is very inexact: a feedback emerges between idea and tactile/motor execution […] the result sounds completely different from my initial conceptions: the anatomical reality of my hands and the configuration of the piano keyboard have transformed my imaginary constructs […]. The criteria are only partly determined in my imagination; to some extent they also lie in the nature of the piano-I have to feel them out with my hand. For a piece to be well-suited for the piano, tactile concepts are almost as important as acoustic ones […]. A Chopinesque melodic twist or accompaniment figure is not just heard; it is also felt as a tactile shape, as a succession of muscular exertions.[300]

From Ligeti's recollections, it is apparent that in the process of composing, he often negotiates his imaginary constructs with the physical feel of his hands where both components are equally important. At times, the physical feel was prioritised as he 'transformed imaginary constructs' to fit his hands. Such a parallel can be observed in Chopin's compositions. Drawing on his observations, one can infer that when Chopin composes his miniatures, he explores and accumulates these tactile shapes which eventually form a bank of haptic procedures for him to tap into in his future compositions. Since tactile shape is felt as 'a succession of muscular exertions', his compositional process might be subconscious, relying on what has previously worked under his hands. As smaller forms are easier to work with, it is, therefore, not so surprising that Chopin used haptic procedures that he had road-tested in small forms as an ergonomic entry point into his sonatas.

The most obvious instance would be the second movements of both Op. 35 and Op. 58. Whereas some of the middle movements - either second or third depending on whether it is a three or four movement structure - of Beethoven's and Haydn's earlier piano sonatas have tended to take the form of Minuet and Trio (A-B-A), Chopin substituted Op. 35/II with a similar A-B-A structure composed through Mazurka rhythms in the outer sections and Waltz rhythm in the middle.[301] The outer sections of Op. 58/II retain a scherzo-like character but with figurations that resemble an etude

[299] David Rowland, *The Cambridge Companion to the Piano* (Cambridge: Cambridge University Press, 1998), 167. Antole Leikin, 'The Sonatas', 161. 'The mixing of forms by romantic composers striving to renovate the Classical formal patterns and to depart from the predetermination of the traditional sonata mould'.

[300] György Ligeti, *Liner Notes to Works for Pianos Etudes* (Mainz: Schott Musik International, 1995), compact disc, 8-9.

[301] See Practical Documentation 2 for a list of sonatas by Beethoven, Haydn and Mozart that used the Minuet and Trio form in their middle movements.

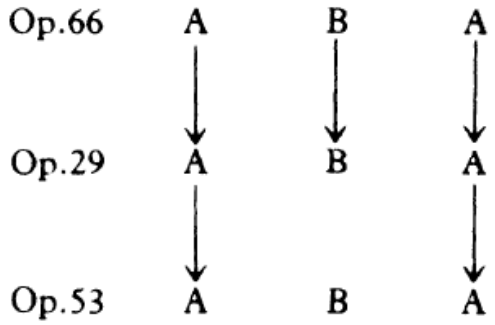
and a chorale texture in the middle section. In a similar vein, whereas the last movements of classical sonatas have taken the form of a rondo (ABACAD), both Chopin's last movements retained that structure loosely, but in the manner of an etude as in Op. 35 and a quasi-gallop in Op. 58. Samson's 1989 article on Chopin's genre pointedly summarises Chopin's achievement in this respect:

> On the surface the main point here is his [Chopin's] rejection of the characteristic variation sets and rondos of the 'brilliant' style in favour of a diversity of miniature designs and single-movement extended structures. But at a deeper level *the real change once more involved transformation rather than rejection.* At base Chopin remained faithful to the formal methods of the 'brilliant' style, but his achievement was to absorb their juxtaposed lyrical and figurative paragraphs into tonally regulated organic wholes, which provide incidentally new contexts for the sonata-form archetype.[302]

Perhaps not trained as a pianist, Samson's observations and analyses favoured and relied largely on formal archetypes. Using Chopin's four impromptus as a case-study, Samson reduced thematic similarity found in those four works into an A-B-A model where he identified 'precise parallels of formal design, proportion, detailed phrase structure, texture and contour. And the links are strengthened by motivic parallels'. [303] A graphic representation of such similarities were demonstrated by the arrows in the diagram below.

[302] Samson, 'Chopin and Genre', 216. Emphasis added.
[303] Ibid, 218.

Fig. 1
a)




b)

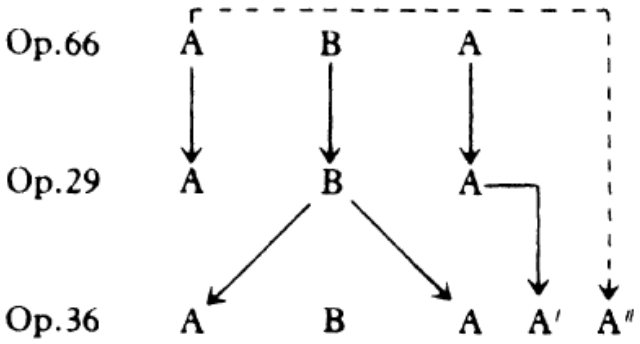



Figure 4.6: Samson's Model[304]

The identified passages of similarity across the four works over four pages prior to Samson's diagram invites comparison to the type of motivic analysis carried out by Réti as shown in Chapter 3. In Chapter 2, I demonstrated Chopin's reliance on the piano as a source of initial motivation to his composition and how thematic figurations are transformed as a result of his haptic procedures. Consequently, I will demonstrate that such similarities as Samson observes have come along as a result of Chopin's haptics rather than a case of a calculated 'paper exercise'.

Haptic procedures

To go a step further to support my contention, I will use the precise passages that Samson has identified in his discussion of the impromptus. Before that, I will illustrate some ways in which Chopin

[304] Ibid, 223. I believe Op. 53 is a mistake since that is a Polonaise. It should be Op. 51.

has used his haptic procedures, those of which he has road-tested in his smaller forms as an ergonomic entry point to his sonatas.

Every genre of music has a specific attribution. Take the waltz for instance, the left hand is usually responsible for articulating the 3/4 meter, thereby contributing to a specific haptic movement: a circular wrist motion in an anti-clockwise direction as it moves from the single bass note to the following two chords and then back down to the next bass note. The following example illustrates a typical waltz texture found commonly in piano music.

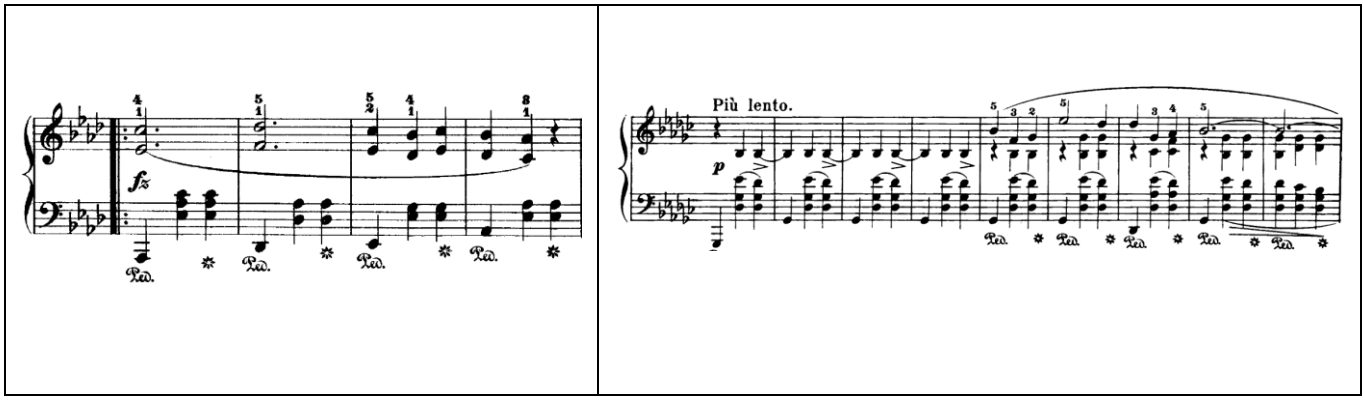
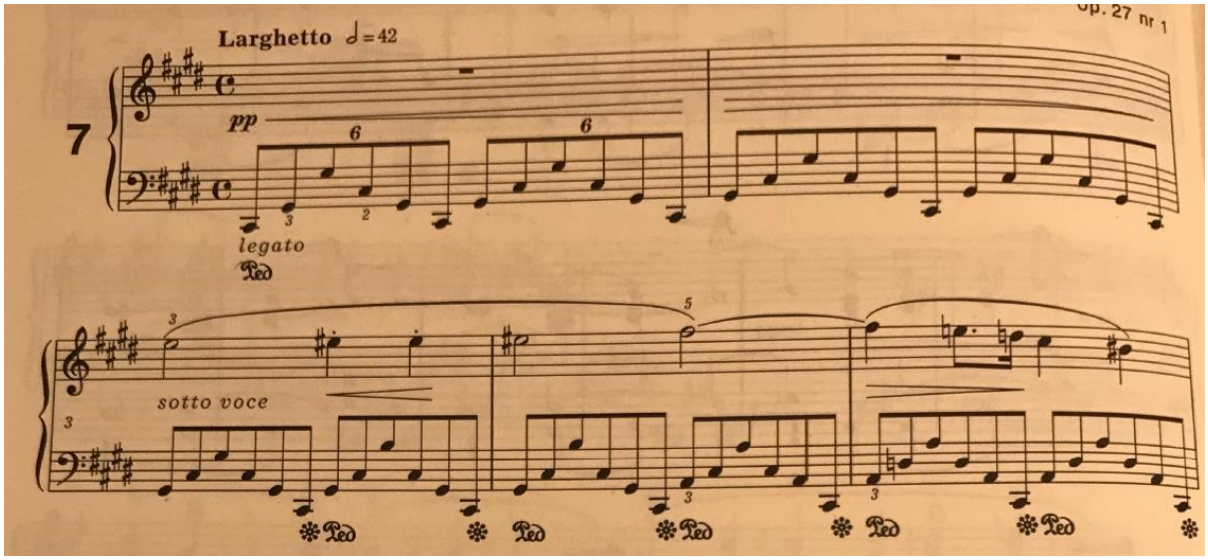
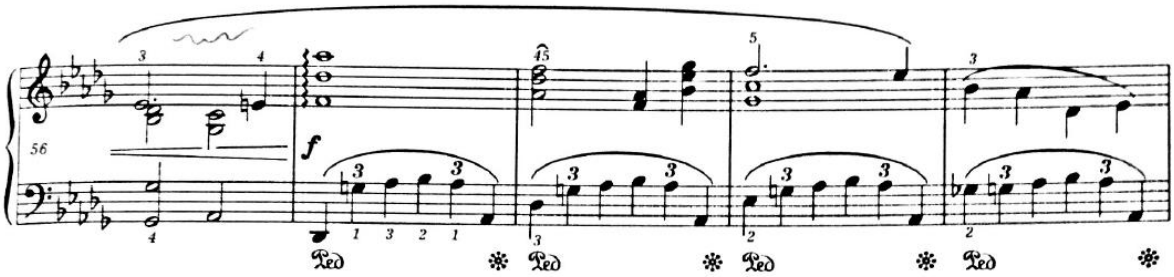



Table 4.7 Chopin Waltz Op. 34 bars 17-20 and Chopin Sonata Op. 35/II bars 81-89

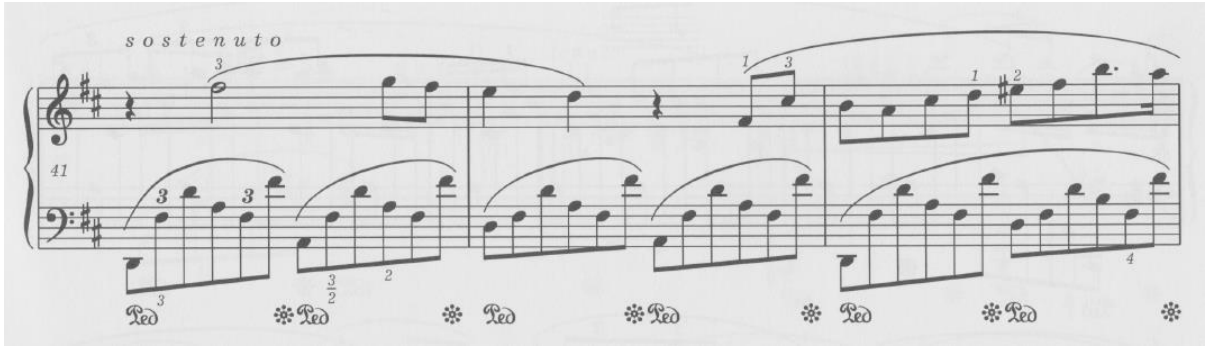
As a popular genre, this waltz rhythm and texture finds its way into the trio of Chopin's Op. 35/II as a modified waltz where both hands take turns (or at times, simultaneously) become responsible for articulating the waltz rhythm. This does not necessarily imply that Chopin has 'composed a waltz' for the trio section, and in this case, it does not actually sound like a typical waltz; it demonstrates that he has used a haptic procedure that he is familiar with as a way of filling a musical space. Looking at the lyrical second subjects found in both the first movements of his sonatas, we can also observe textural links to the nocturne genre. Nevertheless, despite these textural links, the mood that is created as a result is very different to those from his actual nocturnes. Both of these second subjects are composed differently: The opening of the second subject in Op. 35/I resembles a chorale in which the left hand takes on textural accompaniment that is more commonly found in a nocturne from bar 56 onwards (see example 4.9). In contrast, the opening of the second subject in Op. 58/I begins immediately with textures typical of the nocturne genre.




Example 4.8 Chopin Nocturne Op. 27/I Bars 1-4[305]




Example 4.9 Chopin Sonata Op. 35/I Bars 56-60[306]




Example 4.10 Chopin Sonata Op. 58/I Bars 41-43[307]

[305] Fryderyk Chopin, *Nocturnes* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2010), 48.
[306] Fryderyk Chopin, *Sonaty Op. 35, Op. 58* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2010), 13.
[307] Chopin, *Sonaty*, 41.

Since genre gains meaning and identity through both the composer's and the listener's experience, the transaction that is happening here between the secondary theme of Chopin's Op. 58/I and the listener is in part dependent on the listener's memorised experience of a nocturne, be it Chopin's nocturnes or nocturnes by other composers. The listener draws on his or her memorised experience of a nocturne: a slow harmonic progression supported by the pedal and the cantabile *bel canto* melody in the treble register that sits above the bass harmonic figures. As such features begin to be internalised by the listener, the mental construction of the listener for the secondary theme is shaped from associations external to the sonata. In other words, the sonata gains meaning by making reference to that external mental construction which does not come entirely from the sonata. To a large extent, the significant element of our understanding of the secondary theme comes from our memorised associations with the nocturne. Consequently, a chain of associated meanings and ingredients are in place before the 'transaction' or 'contract' takes place, allowing meaning to form when we listen to those four bars in example 4.10.

Returning to Samson's observations, across the four impromptus there are indeed 'precise parallels of formal design, proportion, detailed phrase structure, texture and contour'.[308] Yet, such parallels in all the above aspects extend beyond the four impromptus. The last movement of Op. 58 carries a striking resemblance with the impromptus. Nevertheless, to call that movement a sibling of the impromptu will be incorrect since in essence it is composed in the spirit of a gallop in the form of a Rondo. A closer investigation reveals that such parallels in thematic figurations have come through Chopin's haptic procedures.

[308] Samson, 'Chopin and Genre', 218.

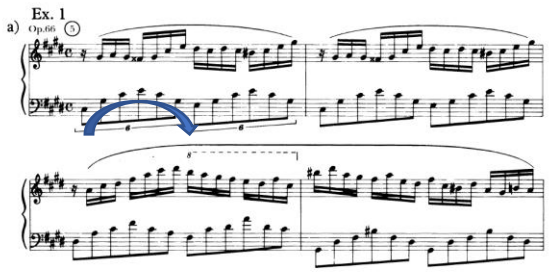
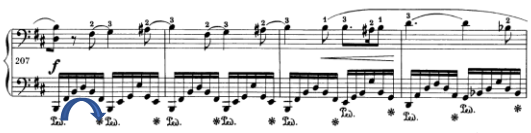
| Impromptu Op. 66 Bars 5-8 | Op. 58/IV Bars 207-210 |
| --- | --- |
|  |  |

Table 4.11 Between Impromptu Op. 66 and Op. 58/IV

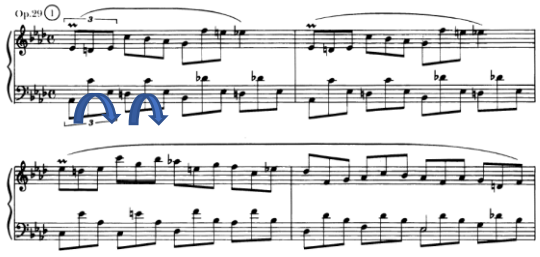
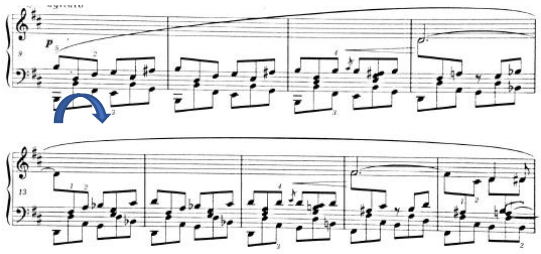
| Impromptu Op. 29 Bars 1-4 | Op. 58/IV Bars 9-17 |
| --- | --- |
|  |  |

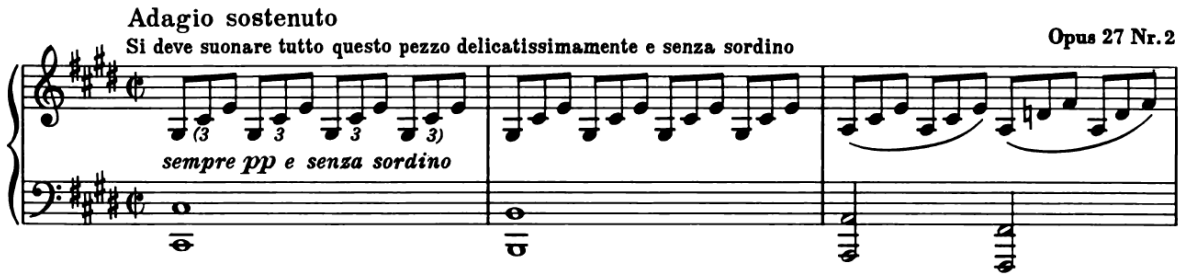
Table 4.12 Between Impromptu Op. 29 and Op. 58/IV

Chopin's use of the wrist as a pivotal aspect of his haptic procedures has been demonstrated in detail in Chapter 2. Both impromptus retain this aspect in the left hand. Composed as the first impromptu of the set in 1834, Op. 66 contains that circular wrist movement as a way of creating pianistic brilliance which Chopin in his later years drew upon when composing Op. 58 (see table 4.11). In Op. 29, the left hand also retains the same wrist motion as a means of articulating the compound time signature as in the case of the opening of Op. 58's Rondo theme (see table 4.12). What is different here is that the thematic aspect of the rondo theme played by the right hand has also been shaped equally to take on the same haptic procedure. In so doing, the figuration becomes more pianistic and ergonomic for the hands. In comparison, the melodic figures of Op. 29 lack such treatment. Judging by how Chopin's compositions have relied on haptic procedures and further developed even in his later works, I cannot agree with Samson's conclusion that 'the mature Chopin was defiantly a composer, not a pianist-composer'.[309]

[309] Ibid, 221.

Such nestling of genres in the sonata is not entirely new, especially in the works of previous composers such as Bach or even Beethoven and Mozart. However, the means by which mixing of genre is achieved takes on different forms. Recent scholarship on Bach's mixing of genre, for instance, has dealt with 'his dressing of works entitled sonata in the clothes of the concerto'.[310] For the case of Butler's research, he demonstrates how Bach reverses this procedure - concerto in the clothes of sonata - in his Brandenburg Fourth Concerto. He argues purely from a formal perspective observing that the thematic materials in the A section of the concerto are much shorter, about a third of the length of the B sections.[311] In comparison, a typical concerto first movement tends to have both A and B sections of the same length. Therefore, the manner in which Bach has mixed the genre of concerto and sonata takes the manner of how he has organised and composed thematic materials for the A and B sections.[312] Other times, Bach merges compositional features of different genres in works such as the Toccatas BWV 911-916. As a virtuosic piece, the D major toccata BWV 912 in particular opens with an improvisatory prelude, followed by a fugue, two slower sections that resemble a fantasia and ending with a fugue that it is a gigue in character.

Beethoven's manner of mixing genres takes a different form. The first movement of his Op. 26 took the form of a set of variations (similar to the first movement of Mozart's K 331). The second movement of Mozart's K284 takes the form of Rondo and Polonaise. Both the first movements of Beethoven's Op. 27 No. 1 and No. 2 were labelled 'Sonata quasi una Fantasia' suggesting characteristics of a fantasy.




Example 4.13 Beethoven Op. 27 No. 2 Bars 1-3[313]

[310] Gregory G. Butler, 'The Question of Genre in J.S. Bach's Fourth Brandenburg Concerto' in *Bach's Perspectives Volume 4: The Music of J.S. Bach: Analysis and Interpretation* edited by David Schulenberg (Lincoln and London: University of Nebraska Press, 1999), 9.
[311] Butler organised bars 1-83 as the A section (opening tutti and first solo plus a cadential ending in a different key), bars 83-344 as the B section and bars 345-427 as the A da capo section. See Ibid, 10. Bach E major violin concerto 1042, BWV 1054 D major keyboard is the transcribed version. B section in the minor key.
[312] Ibid, 10
[313] Ludwig van Beethoven, *Klaviersonaten Band II* edited by Hans Schmidt (München: G. Henle Verlag, 1976), 17.

As genres marked by opposite characteristics, it becomes almost unsuitable for a fantasy to be situated within a sonata. Where the sonata is 'clearly structured' with 'limited modulation' and 'unified affective character', the fantasy contains 'loosely structured' and 'weakly connected' ideas with 'free modulation' and 'varied affective character'.[314] In the case of the first movement of Op. 27 No. 2, there is firstly a structural issue of how one can allocate the terms of 'Exposition, Development and Recapitulation'. Secondly, harmonic instability occurs as early as bar 3 where D major (introduced as a Neapolitan second before the dominant) interrupts the tonic stability of C# minor. Equally unstable is the second phrase or subject (bars 5-9) when E major is introduced by a diatonic modulation to F# minor yet before it is established, it has shifted to E minor in bar 10 awaiting further modulations in the next phrase. In sum, Beethoven has presented us in this first movement with an understated tonic and an unpredicted harmonic progression. Above all, it becomes superficial to recognise the first movement solely as a fantasy. The hybrid-nature of the work has allowed both the listener and performer to experience 'the danger and intensity of the fantasy' in the framework of 'the well-ordered sonata' where 'sentiment as much as formal beauty, plays a role'.[315]

It is important to highlight here that Chopin seems to have favoured those sonatas of Beethoven that departed from traditional norms. The sonata that he often used in his teaching was Op. 26. Ernst Oster has further suggested that Chopin has used the last movement of Op. 27 No. 2 as a fundamental model for his first impromptu, Op. 66.[316]

While his predecessors have mixed genres through more formal means, Chopin's mixing of genres in the sonatas has tended to rely on haptic procedures which he has developed and tested in smaller forms. Nonetheless, as I have pointed out, Chopin does not simply insert a generic waltz, nocturne or impromptu haptic procedure. Instead, he constantly modifies such haptic procedures in order to find the most ergonomic means of creating thematic passages.

To a listener, performer or analyst, Chopin's handling of the sonata principle through such varied ways bring forth points of contention. Drawing on some of Heather Dubrow's writings on genre in the field of literature:

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[314] In chapter 4, on his monograph on Beethoven, Timothy Jones gives a detailed comparison of the Sonata and Fantasy genre. Timothy Jones, *Beethoven: The 'Moonlight' and other Sonatas, Op. 27 and Op. 31* (Cambridge: Cambridge University Press, 1999), 58.

[315] Ibid, 64.

[316] Ernst Oster, 'Two Articles by Ernst Oster' in *Aspects of Schenkerian Theory* edited by David Beach (New Haven and London: Yale University Press, 1983), 207. 'However, it may be- whether the Fantaisie-Impromptu is something in the middle of the road between a reminiscence and an imitation, or is quite consciously a study after Beethoven, or if Chopin developed or constructed his opening from Beethoven's coda- one thing is clear beyond doubt: Chopin Understood Beethoven!'

> Writing in a genre can be a highly polemical gesture, a way of attempting to initiate a new chapter of literary history through the act of creating a single work of art. In other words, it is by overturning our generic expectations that a writer can induce in his readers a series of intellectual reflections and emotional experiences very like those being enacted in and by the work itself.[317]

In a similar fashion, whether intentional or not, Chopin's blending of genres could arguably induce effects of 'intellectual reflections and emotional experiences' among his listeners. By tapping into popular genres typical of the salon – nocturnes, waltzes, mazurkas, those that he had already made known to his audiences between the years of 1832 and 1837 – Chopin might have filled the dominant sonata genre with these minor genres for a variety of reasons. On one hand, it allowed him to use his strengths to his advantage, since working with these smaller genres was what he was most at ease with and known for; the various combinations and individual characteristics of these genres in turn allowed him to compose sonatas in an innovative manner, as he tested out different possibilities of developing works based on other genres; on the other hand, it allowed him to encourage his audience to listen to and appreciate the sonata genre differently.

With the changing climate of the nineteenth-century musical scene in July-monarchy Paris, the rising popularity of operas gave birth to popular genres such as the fantasy, the potpourri and transcriptions of operatic themes which led to a decline in 'the prescribed and predictable sonata'.[318] Consequently, Chopin's handling of the sonata not only challenged the generic expectation of the form, but at the same time, it showed that he was able to use his strengths whilst composing in a genre that was starting to be viewed as old-fashioned and obsolete by the 1830s.

[317] Heather Dubrow, *Genre* (New York: Routledge Revivals, 2014), 30, 37.
[318] Levin, 'Seducing Paris', 149.

Chapter 5: On Improvisation

In a recent article titled 'Saving Improvisation', Dana Gooley discusses Hummel's free fantasies, themselves a search for an answer to the 'problem of improvisation'. Yet Gooley also writes that the nineteenth century offered some of the most favourable conditions for the practice of improvisation: 'an ideal or utopia linked to notions of freedom, fulfilment, and social wholeness'.[319] This immediately begs a question: if the nineteenth century was so favourable to the practice of improvisation, what was Hummel trying to save improvisation from? According to Gooley, Hummel's fantasies, composed with alternating passages of counterpoint and pleasing popular tunes, were intended to bridge the gap of a divided heterogeneous public, between that of the aristocrats and rising middle classes.[320] Hummel in the 1830s was thus trying to save improvisation from both its previous learned style and current ear-pleasing potpourri of familiar opera themes.

From Gooley's article, we see that the practice of improvisation, despite retaining the basic characteristic of including spontaneous elements, took different styles and forms. By the 1830s, the most common manner of improvising in the classical tradition was that of the performing virtuoso, who took a familiar opera theme from members of the public and performed it with technically demanding passage work. Liszt and Hummel were both known for their improvisations on opera themes.[321] Such bravura improvisations were considered a common 'party-trick' or 'circus act' that pleased the crowd. With Chopin, however, improvisation did not take the form of such showmanship. Instead, it eventually became an intimate process that guided him through his compositions and became integrated with them.[322]

This chapter looks closely at Chopin's relationship to improvisation and explains the importance of this practice to the construction of his mature piano sonatas. A section will be devoted to Chopin's own time. It will use some of his letters and diary entries of his close friends such as Delacroix and George Sand to demonstrate his relationship to improvisation. It also describes and differentiates the various types of improvisation in play in Paris during the period, from highly virtuosic to those of Chopin with haptic exploration at their core. It also discusses contemporary teaching manuals and treatises on improvisation, and how improvisation has already been studied in relation to some of Chopin's compositions. It goes further to illustrate that Chopin's approach to improvisation

[319] Dana Gooley, 'Saving Improvisation: Hummel and the Free Fantasia in the Early Nineteenth Century', in *The Oxford Handbook of Critical Improvisation Studies* edited by George E Lewis and Benjamin Piekut (Oxford: Oxford University Press, 2015), 194.
[320] Ibid, 204.
[321] Despite a great improviser in opera themes, Hummel has avoided themes from Rossini's operas.
[322] Later in the chapter, I discuss George Sand's account of how Chopin improvised.

is dependent on his haptic process, which in turn influences the manner in which he composes his music. In so doing, it sets the frame for my alternative view of his sonatas.

Context

Keyboard improvisation has been recognised as a prominent facet of performance culture since the seventeenth century.[323] In the eighteenth century, Bach, Mozart, Haydn and Beethoven were known, during their lifetime, to be outstanding improvisers. In 1930, one of the pioneers of the study of improvisation, Ernst Ferand, went as far as to argue that 'the whole history of the development of music is accompanied by manifestations of the drive to improvise'.[324] Nonetheless, the legacy of the work-concept, the primacy of sketches, and the need for analysts to work with fixed texts in the form of scores have very often caused the question of improvisation to be neglected in the discussion of piano music within academia. Chopin, rooted in the early decades of nineteenth-century Warsaw and Paris, had a performing and composing career that was very much influenced by the practice of improvisation. Contemporary accounts of Chopin's improvisations and his letters to his friends serve as a testament.

As was the case for any aspiring pianist of the nineteenth century, Chopin's concert performances in his early career often included improvisations on popular operas, themes from Polish culture, and dance tunes. On occasion, Chopin's improvisations received high praise from the audience. In a letter to his family on 12th August 1829, Chopin wrote:

> I improvised on a theme from *La Dame blanche*. Then the stage-manager begged me to choose another Polish theme […] so I selected *Chmiel*, which electrified the public, unaccustomed as it is to this kind of melody. My spies on the floor of the house declare that people were dancing up and down in their seats. [325]

This sequence of events took place at Chopin's debut at the Royal and Imperial Opera House in Vienna the previous day. However, in the same letter Chopin further mentioned that tickets for this concert were not a complete sell-out and his 'Free Fantasia did not turn out particularly well'.[326] There was also a shared opinion among the audience that he played 'too quietly or rather too delicately for those accustomed to the banging of the Viennese pianists'.[327] Judging from Chopin's account, one can

[323] Charlotte Mattax Moersch, 'Keyboard Improvisation in the Baroque Period' in *Musical Improvisation: Art, Education and Society* edited by Gabriel Solis and Bruno Nettl (Urbana: University of Illinois Press, 2009), 150.
[324] Ernst Ferand, *Improvisation in Nine Centuries of Western Music: An Anthology with a Historical Introduction* (Cologne: Armo Volk, 1961), 51.
[325] Chopin, *Selected Correspondence,* 25.
[326] Ibid, 56.
[327] Ibid, 57.

infer that although Chopin was critical of his playing of the Free Fantasia, he was confident and thought highly of his own improvisations on *La Dame blanche* and *Chmiel.*

Two weeks later in Dresden, Chopin was invited to the residence of Prince and Princess Clary. On the invitation of the Prince's mother, Chopin went to the piano and asked the audience for a theme for his improvisation. This time, a theme from Rossini's *Moses* was requested. Again, the musical result was greeted with much delight. Chopin wrote:

> I improvised and so successfully, as it appears that General Leiser […] hearing that I was going to Dresden, he at once wrote the following letter to Baron von Friesen […] 'Mr. Frederic Chopin is himself one of the most eminent pianists I have ever heard.' Such is an exact copy of General Leiser's note.[328]

While young Chopin was keen to improvise during his few concerts in Germany and Vienna, by the time he arrived in Paris towards the end of 1831, he no longer improvised publicly. He was, however, not alone in this respect. Other virtuosos including Mendelssohn and Schumann stopped improvising in their own concerts. [329]

Improvisation and Virtuosity

During the 1820s and 1830s, improvisation underwent a series of reinterpretations and became synonymous with virtuosity. As a consequence, 1830s Paris witnessed a surge of virtuosic concerts where pianists would often improvise around their own pieces. David Trippet for instance has demonstrated that Liszt's virtuosity was particularly improvisatory by nature.[330] Using examples of pianistic figurations from Liszt's *Etude en douze exercises,* Jim Samson spells out clearly the relationship between improvisation and virtuosity:

> The story of keyboard virtuosity is partly the story of such idiomatic figures […] For obvious reasons they invoke the ancient craft of improvisation, which played a vital role in the early stages of the practice […] epitomising the constructed, formulaic qualities associated with the brilliant style. *The essential paradox of improvisation*, *after all, is that the demand for constant spontaneity* ultimately promotes the *formula, and at the same time elevates the idiomatic*, *the capacity to 'think with the fingers'.* The historical record is self-evidently sketchy, but it seems likely that in the early nineteenth century

[328] Ibid, 31.

[329] In 1831, after an improvisation on Mozart's 'Non piu andrai', Mendelssohn expressed that 'I have been quite convinced in my opinion that it is nonsense to improvise in public. Rarely has anything gotten me so down as the way I sat down there to play my fantasy for the public […]. The people were very satisfied […] but I was angry: for it had displeased me and I will never again do it in public'. Quoted from Gooley, 'Saving Improvisation', 11. Schumann's diaries showed that during the years of 1827 to 1831 was the period where he improvised the most. See Dana Gooley, 'Schumann and Agencies of Improvisation' in *Rethinking Schumann* edited by Roe-Min Kok and Laura Tunbridge (New York: Oxford University Press, 2011), 130.

[330] David Trippett, 'Après une Lecture de Liszt: Virtuosity and Werktreue in the "Dante" Sonata' *Nineteenth-Century Music* Vol 32 No. 1 (2008), 55. 'Liszt's particular virtuosity during the 1830s was inherently improvisatory.'

> improvisation gradually weakened its bond with composition and strengthened its links with performance.[331]

This paradox is problematic because according to German critics of the time, including Ludwig Rellstab and Eduard Hanslick, the 'capacity to think with the fingers' as Samson has eloquently put it, falls short of the intellectual qualities they find inherent in Beethoven's music.[332] During the nineteenth century, although virtuosity as a compositional ambition opened up a contrasting style to the serious music that the works of Beethoven came to exemplify, it was attacked vehemently. Debates over virtuosity came into focus in the German musical press, with critics stating their concerns that high art music should be protected from crowd-pleasing amusement. Writing in 1841, in an article entitled 'Das Virtuosenconcert: Gesprach', German critic Eduard Krüger condemned the virtuoso for distracting the audiences from sublime art.[333] The musicologist David Gramit has summarised some of the contentions of advocates of German serious music: that 'the all-too-obvious physicality of the virtuoso distracted from the real significance of music'.[334] He observed that, because by the 1840s 'virtuosos were so firmly established as a corrupting force,' they 'could play with the topic with easy familiarity'.[335] Although virtuosity gave virtuosos an opportunity to showcase their mastery of the instrument, it was done at the expense of the 'real significance of the work'.[336] It was thus quickly deemed by critics as superficial and an excessive ornament to the composition itself.

From a philosophical or aesthetic perspective, such improvisations went against some of the core values of the romantic work-concept that developed around 1800. Gooley sums it up succinctly:

> In the years 1820-1860 musicians, critics, and audiences promulgated and internalised a new standard of musical value privileging carefully crafted, architectonically mediated musical creations of an individuated, distinctive character - "works"- that could be heard and enjoyed repeatedly to form a kind of collective cultural property or canon. The work idea is isolated and valorised a particular mode of musical creation - composition of a mediated, reflected sort- and shifted other modes of musical creation such as execution and improvisation into a position of deficiency or lack.[337]

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[331] Jim Samson, *Virtuosity and the Musical Work: The Transcendental Studies of Liszt* (Cambridge: Cambridge University Press, 2003), 46-47. Emphasis added.

[332] Gooley's discussion of Liszt's Virtuosity captures some of Hanslick's anti-virtuosity sentiments. Dana A Gooley, 'The Battle against Instrumental Virtuosity in the Early Nineteenth- Century' in *Franz Liszt and his World* edited by Christopher Howard Gibbs and Dana A Gooley (Princeton: Princeton University Press, 2006), 75-77.

[333] See Eduard Kruger, 'Das Virtuosenconcert: Gesprach '*Neue Zeitschrift für Musik* 14 No. 40-43 (May 17-28, 1841): 159-161, 163-165, 167-169, 171-173.

[334] David Gramit, *Cultivating Music: The Aspirations, Interests and Limits of German Musical Culture, 1770-1848* (Berkeley: University of California Press, 2002), 141.

[335] Ibid, 139.

[336] Gooley, 'The Battle against Instrumental Virtuosity', 77. 'Perhaps it is here - in the repetitive, mechanical rehearsal of phrases such as "excessive ornament" and "superficial virtuosity"- that the most important, permanent work [of a successful spread of anti-virtuosity sentiment] was done'.

[337] Goole, 'Saving Improvisation', 186.

Since this time, a 'work' and a 'performance' have emerged as distinct categories, representing the artistic persona and the virtuoso persona respectively. Evidently from Gooley's historical assessment, during the years 1820-1850, the work received higher prestige than the performance. This 'new standard of musical value' ignored the importance of the composer's physical considerations, alongside the mental, as compositional tools. The reception of Chopin's compositions, especially his sonatas, represent such instances of such oversight as I will contend further in the next chapter.

An equally important account of this trend can be observed in an earlier study by Carl Dahlhaus.[338] His orderly classification of musical works sets up a dichotomy between work-based cultures associated with Austro-German instrumental music and event-based cultures associated with Italian operas and virtuoso performances. The former, beginning with Beethoven, considered compositions as 'inviolable musical texts', while the latter, led by Rossini, suggested compositions as 'a mere recipe for performance'.[339] While the serious music of Beethoven was associated with the ideas of transcendence and the spiritual, the essential qualities that define music as high art, virtuosic and improvised pieces on the other hand, were regarded as mere entertainment, leading to a debasement of taste. In music's intellectual and aesthetic battle against other art forms, the ability for instrumental music, as exemplified by Beethoven, to express profound and transcendental thoughts, free from extra-musical associations, eventually became grounds for music philosophers and critics to advocate music as worthy of high art.[340] This eventually led to a change in the conception of music's role in society, elevating 'music as art' over music for everyday recreation, cultivating taste for serious music over dilettantish music values.[341] This new set of aesthetics, in which compositions began to be considered autonomous, promoting the concept of art for art's sake and the identification of the composer's text as 'final arbiter', eventually displaced the older tradition of improvisation.[342] With the

[338] Carl Dahlhaus, *Nineteenth-Century Music*, translated by J. Bradford Robinson (Berkeley: University of California Press, 1989).

[339] Ibid, 9-10. Despite setting up this dichotomy, it is simplistic of Dahlhaus to consider 'Rossini's compositions as mere recipe for performance'. A surviving manuscript of Rossini's famous aria "Una voce poco fa" dedicated to Matilde Juva contains ornaments showing how Rossini 'expected singers to shape his melodic line in performance.' Philip Gossett, *Divas and Scholars: Performing Italian Opera* (Chicago: University of Chicago Press, 2006), 290-291.

[340] Summarising the narratives of Sponheuer, a German musicologist, and Dahlhaus, Applegate concludes that the rise of absolute music was a solution to and outcome of the aesthetic-philosophical debate that once placed music at the lowest rank among other art forms due to its function as 'the decoration of a moribund court culture'. Consequently, 'music-loving philosophers struggled for and [eventually] won in this period a place for music in modern philosophical and artistic debate.' See Celia Applegate, 'How German Is it?', 281, 286.

[341] Tia DeNora, *Beethoven and the Construction of Genius: Musical Politics in Vienna, 1792-1803* (Berkeley: University of California Press, 1997), 34-57.

[342] This is a view also articulated by Taruskin. See Richard Taruskin, *Text and Act: Essays on Music and Performance* (New York: Oxford University Press 1995), 12.

work-concept gaining force, virtuosos gradually became self-conscious of their public improvisations and tried to avoid getting entangled in such debates among the critics.[343]

In the early 1830s, it was usual for pianists to improvise after a solo recital, both in private performance and in public concert settings. However, improvisation became a very private activity for Chopin in response to the spread of sentiments opposed to virtuosity as detailed above. Gooley provides a possible explanation for this, observing that although 'improvisation declined in practice, there persisted a strong, unreconstructed desire to keep it alive' because 'most composers continued to improvise at the piano as a vital resource for generating and testing compositional ideas'.[344] In other words, improvisation, so closely tied to the performance practice of the 1830s, was an essential starting point for many composers' compositional processes. Eugène Delacroix, one of Chopin's life-long friends, demonstrated the importance of improvisation in Chopin's compositions in a conversation with Wojciech Grzymala on 20th April 1835, as recorded in his diary:

> We spoke of Chopin. He told me that his improvisations were much bolder than his finished compositions. It is the same, no doubt, with a sketch for a painting compared to a finished painting. No, one does not spoil the picture in finishing it! Perhaps there is less scope for the imagination in a finished work than in a sketch […] The finished [work] encloses the imagination within a circle and forbids it to go beyond.[345]

From this diary entry, it is evident that Delacroix equated Chopin's improvisations with his own sketches, with both the improvisation and the sketch serving as the initial impetus for the final work of art. Despite coming from different fields of art, both men shared a common attitude towards this initial impetus. Chopin considered his improvisations bolder, arguably an indication that his haptic process was allowed full rein of freedom while Delacroix recalled that a sketch provided him with more scope for imagination. Delacroix is certainly right that 'one does not spoil the picture in finishing it', but the entire process leading from the initial sketch to the final product for Chopin is bounded by frozen time, structural necessities for repeated listening, problematising and constantly questioning his choices of notes. Because the initial impetus of his compositions takes the form of an improvisation that relies on his physical feel of the keyboard, it becomes a process of his hands moving faster than his brain. His struggles as a composer to maintain a balance between physical feel and structural necessities led him to concede that 'his improvisations were much bolder'.

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[343] This is well-trodden territory which has been explored in depth by previous scholars including Lydia Goehr, Dana Gooley and Jim Samson.

[344] Dana Gooley, *Fantasies of Improvisation: Free Playing in Nineteenth-Century Music* (New York: Oxford University Press, 2018), 2. Gooley in his latest contribution on the subject of improvisation makes the distinction between improvisation in performance and compositional practices.

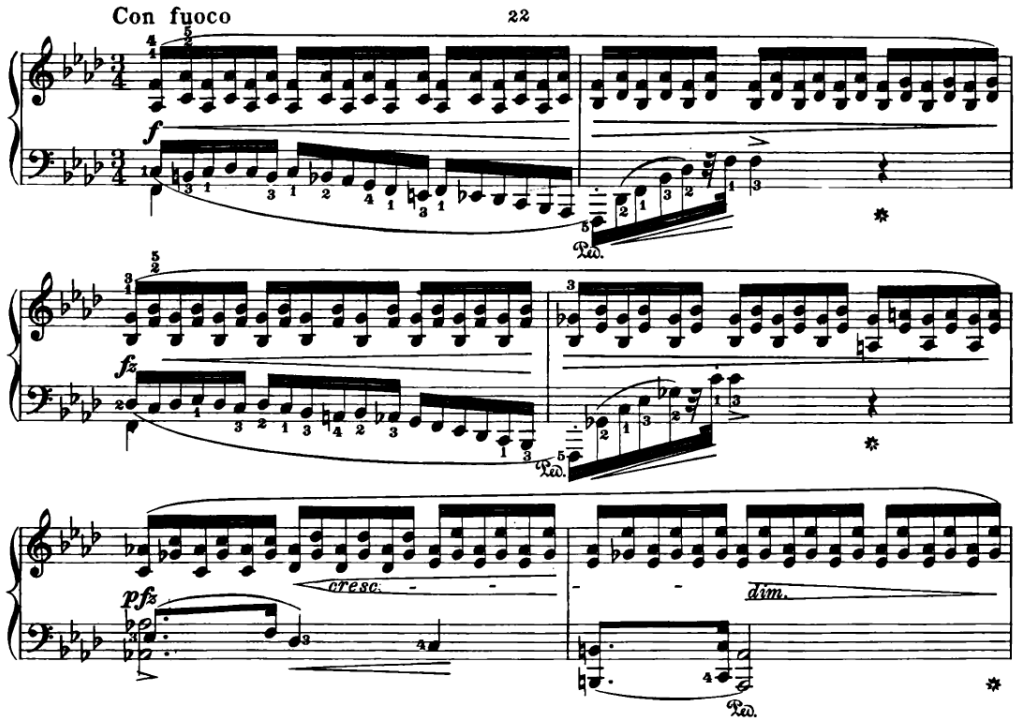
[345] Michèle Hannoosh, *Painting and the Journal of Eugene Delacroix* (Princeton: Princeton University Press, 1995), 72.

Apart from these similarities, in terms of the finished work, both men had opposing views due to the nature of their respective art forms. Delacroix viewed his works as final, although lamenting at the same time that the final seal on a finished work 'forbids' any further room for imagination.[346] Chopin, in contrast, did not treat his compositions as finished works. Unlike the paintings of Delacroix, Chopin's compositions could only unfold in real time through live performance, and the experience of continual re-creation led to numerous variants and inconsistencies between the manuscript sources, publications, and accounts of live performances, as he constantly made refinements and adjustments after each re-enactment. [347] Further variants also exist from the occasions in which he wrote out pieces as presents.[348] One of his biographers, Gerald Abraham observes that:

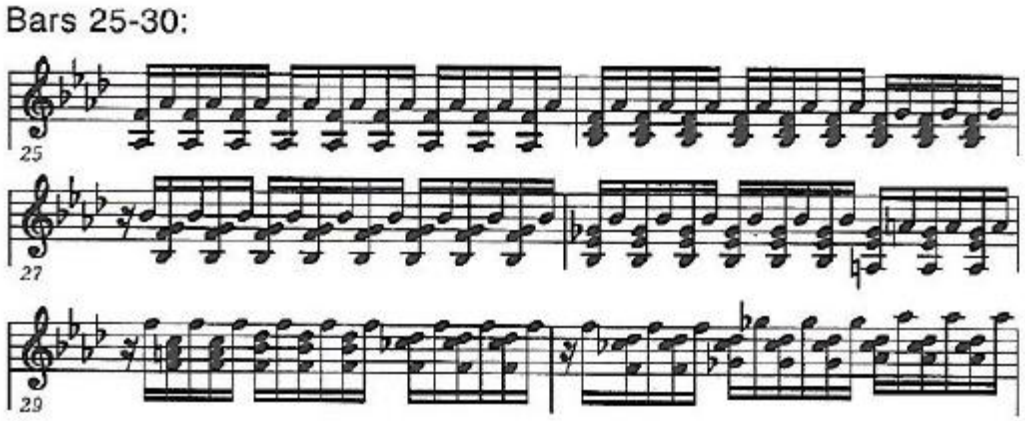
> Chopin's contact with his sound-medium was more immediate; the printed forms of his works were often, as his own numerous variants and changes of mind show, the records of music that, however finely polished and worked out, was originally and essentially keyboard improvisation; the record remained but the improviser's own moods constantly changed.[349]

This quixotic approach to composition perhaps inspired the adaptations found in his students' scores. These variants exist for different reasons. At times, the variants are a result of Chopin's adaption of passagework so that it can be made easier to play by his students. Other variants also exist in which Chopin adds extra ornamental notes to an excerpt as he demonstrates a passage in a lesson. In the discussion below, I will use pupils' copies of the F major Nocturne Op. 15 No. 1 and the E minor Concerto Op. 11 to expand in more detail.

[346] Ibid.
[347] This situation obviously changed with the advent of recording technologies.
[348] As Ekier has recorded, in Version 2a of Nocturne Op. 9 No. 2 'an autograph of the first 2 bars of the R.H. part, written in Dresden 22 X 1835 and given to Maria Wodzińska'. In that variant, bar 2 contains an extra acciaccatura. See Fryderyk Chopin, *Nocturnes: Performance Commentary Source Commentary (abridged)* edited by Jan Eiker (Krakow: The Foundation for the national edition of the Works of Fryderyk Chopin, 2010), 10.
[349] Gerald Abraham, *Chopin's Musical Style*, (Westport: Greenwood Press, 1980), 77.




Example 5.1: Chopin Nocturne Op. 15 No. 1 Bars 25-30[350]



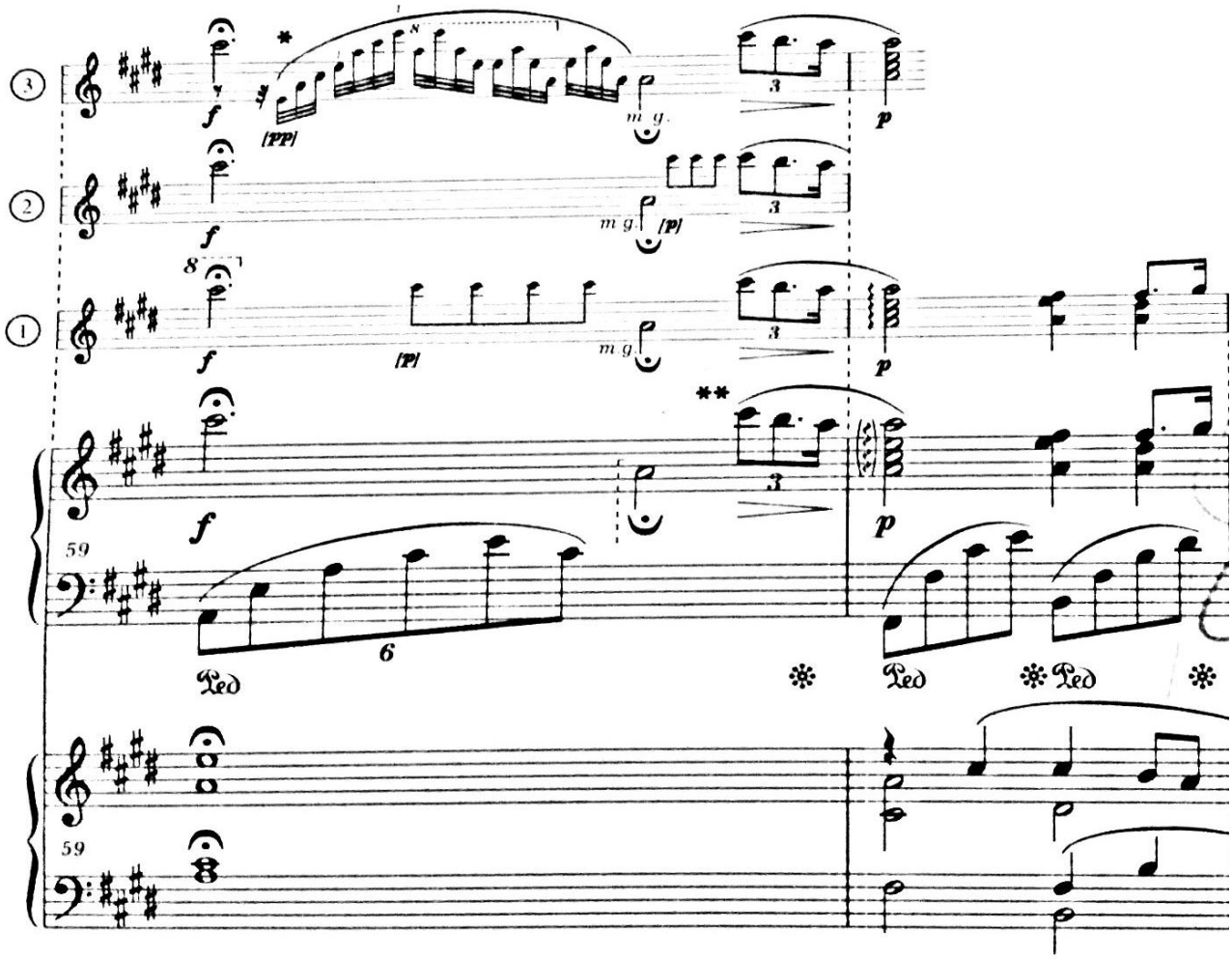

Example 5.2: Chopin Nocturne Op. 15 No. 1 simplified[351]

This simplified version, which arises out of pedagogical concerns, shows that Chopin does not view his compositions as fixed, unchangeable entities. In realising that the published version was technically too demanding for his student, Chopin simplified the double-sixth figurations of the right hand, as can be observed in example 5.2. The four video clips recorded further demonstrate the different wrist action required between the original and simplified versions. Recorded at a slow

[350] Frédéric Chopin, *Complete Works for the Piano Volume 4: Nocturnes* edited by Rafael Joseffy (New York: G. Schirmer, 1915), 21.
[351] Chopin, *Nocturnes: Performance Commentary,* 4.

motion, the absence of the index finger in the simplified version allows a greater wrist rotary movement sideways.[352] Thus, when played at speed, this simplified figuration ergonomically helps to facilitate lightness and dexterity. In contrast, the presence of the index finger in the original version restricts the sideways rotary movement and forces the wrist movement into a more vertical plane.[353] Such restriction will pose a challenge for a less-skilled pianist.

There are also non-pedagogical differences present in his publications. The next example demonstrates Chopin developing a basic idea in some of his pupils' copies.[354]



Example 5.3 Chopin Concerto Op. 11/II Bars 59-60[355]

[352] See video examples 5.2a and 5.2b.
[353] See video examples 5.1a and 5.1b.
[354] For a discussion of the origins of these variants, see the source commentary of Fryderyk Chopin, *Concerto in E minor Op. 11 version with second piano: Performance Commentary Source Commentary (abridged)* edited by Jan Eiker (Krakow: The Foundation for the national edition of the Works of Fryderyk Chopin, 2010), 12. Only variant 3 was identified as belonging to Jane Stirling.
[355] Music example taken from Ibid, 74.

In the above example, at bar 59, while teaching the second movement of his piano concerto Op. 11, Chopin marked in three different suggestions as ways of decorating the subdominant harmony: extending the A-major tonic chord through arpeggio figures and the use of repeated C-sharps at two different places. Evidently, this development of a basic idea goes beyond pedagogical reasons as illustrated in example 5.2. In this instance, it is arguable that these variants, recorded on different occasions, were spontaneous decisions.

Chopin's Improvisation and his Compositions

Despite the presence of such variants composed by Chopin for his supposedly finished works, when it came to improvisations for a new work, it was never easy for him to record them. In her diary, George Sand documented an instance of this tedious and painful process:

> His [Chopin's] creativity was spontaneous, miraculous. He found it without seeking it, without expecting it. It arrived at his piano suddenly, completely sublimely, or sang it in his head during a walk, and he would hasten to hear it again by recreating it on his instrument. But then would begin the most heartbreaking labour I have ever witnessed. It was a series of efforts, indecision and impatience to recapture certain details of the theme he had heard. What had come to him all of a piece, he now over-analysed in his desire to transcribe it and his regret at not finding it again 'neat' as he said, threw him into despair. He would shut himself up in his room for days at a time, weeping, pacing, breaking his pens, repeating or changing a single measure a hundred times, writing it and erasing it with equal frequency, and beginning again the next day with desperate perseverance. He would spend six weeks on a page, only to end up writing it just as he had done in his first outpouring.[356]

The reliability of the second half of George Sand's account has been doubted as actually underestimating the severity of the situation. Kallberg for instance has argued that despite having evidence from Sand's account dealing specifically with Chopin's last two years of composition in Nohant, 'they may well only describe an extreme instance of what was always a troubled process'.[357] Kallberg's contention can be supported by another student of Chopin, Joseph Filtsch, who made a similar observation to that of Sand. As early as 1842, in a letter to his parents in Hungary, Filtsch wrote that

> The other day I heard Chopin improvise at George Sand's house. It is marvelous to hear Chopin compose in this way: his inspiration is so immediate and complete that he plays without hesitation as if it had to be thus. But when it comes to writing it down and

[356] George Sand*, Story of my Life: The Autobiography of George Sand* edited by Thelma Jurgrau (Albany: State University Press of New York, 1991), 1108.

[357] 'Although Sand's remarks concern specifically the composer's last year or two in Nohant (and perhaps thus tell us more about the decline of his power during his late period), they may well only describe an extreme instance of what was always a troubled process'. See Jeffrey Kallberg, 'Chopin and the Aesthetic of the Sketch: A New Prelude in E flat minor?' *Early Music* Vol 29 No. 3 (2001), 409.

> recapturing the original thought in all its details, he spends days of nervous strain and almost frightening desperation. He alters and retouches the same phrases incessantly and walks up and down like a madman.[358]

Like Sand, Flitsch's account suggests that Chopin remained most comfortable and at ease when at the piano, and not when at the writing desk.[359] On a few other occasions, Chopin spoke of his inability to compose without having a piano available. In a letter to Pleyel when he was in Majorca, he complained that 'I dream of music but I can't write any because there are no pianos to be had here'.[360] Despite his close connection to the instrument, Chopin's frustrations came precisely from his interaction with it as he often found himself unable to trace back what his hands had explored and thus made notating his ideas a problematic process.

Previous studies on Chopin's Improvisations

An account of an evening at Nohant in 1841 gives a different perspective of Chopin's improvisational process. In this instance, Chopin, in the company of his close friends, was witnessed exploring the keyboard, searching for harmonies with specific colouristic effects. While looking for colouristic harmonies could not be said to be directly synonymous with haptic exploration, it is nevertheless the case that this sort of improvisation, led by Chopin's physical sensations of negotiating his handshape with the keyboard as he responds to the aural sounds of the instrument, is an example of what I termed earlier as haptic exploration. The process of exploration was clearly undertaken at the keyboard, and not through paper-based methods. Such improvisatory processes demonstrate a core difference between Chopin's improvisation and the more pyrotechnic and harmonically functional approach commonly seen in concert halls.[361]

While listening to Delacroix's explanation of the mystery behind reflection, and the relationship between colour in painting and sound in music to Maurice Sand, Chopin, in his fascination, responded with a haphazard improvisation that he found himself unable to finish. George Sand records:

> He stops. 'What's this, what's this?' exclaims Delacroix, 'you haven't finished it!' 'It hasn't begun. Nothing's coming to me [...] nothing but reflections, shadows, shapes that won't settle. I'm looking for the colour, but I can't even find the outline.' 'You won't find one

[358] Chopin, *Selected Correspondence*, 247.
[359] Numerous writers have also made similar observations. Kallberg for instance writes that for Chopin 'the essential creative act for most pieces was completed beforehand at the keyboard'. Kallberg, *Chopin at the Boundaries,* 99*.*
[360] Chopin, *Selected Correspondence*, 163. A week earlier, Chopin pursued Fontana to 'call at Pleyel for the piano hasn't arrived yet'. Ibid, 162.
[361] Using nineteenth-century pianist-composers' improvisations such as those of Hummel's, Mendelssohn's and Loewe's as case-studies, Gooley's latest book on improvisation makes further distinction between the various types of improvisations based on social contexts. See chapter 2 of Gooley, *Fantasies of Improvisation*, 62-115.

> without the other', replies Delacroix. 'And you're going to find them both.' 'But if I find only the moonlight?' 'You'll have found the reflection of a reflection', answers Maurice.
>
> This idea pleases the divine artist. He resumes playing without seeming to recommence, so vague and hesitant is his musical outline. Little by little our eyes have become filled with those soft colours corresponding to the suave modulations taken in by our auditory senses. And then the 'note bleue' resonates and there we are, in the azure of the transparent night. Light clouds take on all the forms of fantasy; they fill the sky; they crowd round the moon which casts upon them large opal discs, awakening their dormant colours. We dream of a summer night: we await the nightingale. A sublime melody arises.[362]

George Sand's description of the 'note bleue' as 'azure' deserves some attention. Eigeldinger's choice to maintain this French word in its original in the above translated text was justified largely because of its relationship to external agents: the idea of being lost within the forest and wandering through the moonlight. While 'azure' might mean 'blue' in English, it is not just any kind of blue. Azure in the nineteenth century remained one of the most expensive blue pigments, used among the aristocrats. [363] This deep and intense blue that the novelist Sand used to describe Chopin's improvisation on that occasion not only highlighted its intimacy, creating a sense of poetic atmosphere, but at the same time distanced his improvisations from the showmanship of other virtuosos.

The celebrated 'note bleue', as George Sand termed it, eventually became a useful tool for Eigeldinger in framing his discussion of Chopin's Prelude Op. 45. While the complexities of modulations and harmonies used in this piece often left his early biographers dumbfounded, Eigeldinger took into account Chopin's manner of composition as motivated by an exploratory type of improvisation. It led him to a different conclusion about the piece.[364] He argued that

> The Prelude thus suggests a kind of stylised improvisation against a possible background of the tradition of modulating preludes exemplified by Beethoven. Moreover, it is part and parcel of the archetype of the 'Moonlight' Sonata, while also linked to Delacroix's ideas on reflection and shape.[365]

Such a 'stylised improvisation', as described by Eigeldinger, mirrors some of the writings found in nineteenth-century treatises on improvisation. In Czerny's 1829 treatise on improvisation, he highlighted an 'interesting' manner of preluding found in the works of J.S. Bach and C.P.E. Bach. Rather

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[362] George Sand, *Impressions et Souvenirs* (Paris: M. Levy, 1873), 85-86. Quoted from Jean-Jacques Eigeldinger, 'Chopin and "La Note Bleue": An Interpretation of the Prelude Op. 45' *Music and Letters* Vol 78 No. 2 (1997), 241.

[363] For the use of azure and what it symbolises, see Susan Harrow, 'Zola: Colorist, Abstractionist' *The Romantic Review* Vol 102, No. 3-4 (May-Nov 2011): 465-84

[364] Tadeusz A. Zielinski claims that: 'Not only does this new work have nothing stylistically in common with the Preludes [Op. 28], but it suggests none of the genres previously used by Chopin, not even the nocturne, despite its slow tempo and intimate, meditative air. Quoted Eigeldinger, 'Chopin and "La Note Bleue",' 234.

[365] Ibid, 252.

as a fully composed work like Chopin's set of preludes, Czerny's description of preluding refers to a more spontaneous act of playing a short piece on the spot informed by a sound knowledge of harmony and keyboard skills. He described both composers' preludes as 'almost like a recitative […] seemingly without a conscious plan, resembling wanderings into unknown regions', which 'leaves room for a great deal of expressiveness and striking harmonic changes'.[366] In his later treatise published in 1839, Czerny further wrote that 'extemporising possesses this singular and puzzling property, that […] We must leave nearly everything to the fingers and to chance'.[367] Nonetheless in order to achieve at this level of improvising, which also 'pertains to composing', Czerny wrote that three skills were necessary: firstly, natural flair 'consisting of inventive power'; secondly, an understanding of harmony and thorough bass; and lastly a well-developed technique.[368]

Advice on harmony is similarly found in earlier teaching manuals, for instance, C.P.E. Bach's *Art of Playing Keyboard Instruments* (1753) and Vierling's *Anleitung zum Präludieren* (1794).[369] In his introductory chapter, C.P.E. Bach emphasised that improvising requires 'a thorough understanding of harmony and acquaintances with a few rules of construction'.[370] From these treatises, it is evident that despite elements of spontaneity and creativity that one would often associate with an improvisation, there are certain harmonic procedures and rules that have to be learnt and observed. Chopin's handling of Op. 45 is reflective of these aspects. Having learnt counterpoint and harmony with Elsner during his days in Warsaw, and having studied the works of Bach, his Op. 45 could have possibly inherited some of the preluding traditions of Bach while reflecting on the teachings of Elsner. At the same time, while being inspired by Delacroix's ideas, and within the framework of what might be harmonically possible, Chopin uses his improvisatory skills combined with his haptic procedures such as handshapes and fingerings. This is perhaps what Czerny meant when he wrote that, when improvising, we 'must leave nearly everything to the fingers and to chance'.[371]

While Eigeldinger alighted on the topic of improvisation through a diary entry, John Rink demonstrated the importance of Chopin's improvisation in some of his later works through his

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[366] Carl Czerny, *A systematic Introduction to Improvisation on the Pianoforte* [1829] translated and edited by Alice Mitchell (New York: Longman Music Series, 1983), 23.
[367] Carl Czerny, *Letters to a Young Lady, On the Art of Playing the Pianoforte, from the earliest Rudiments to the Highest Stage of Cultivation, Vienna* 1839 translated by J.A. Hamilton (New York: Firth Pond and Co. 1851), 75.
[368] Ibid, 2.
[369] In his survey of nine different treatises, including Bach and Vierling, Aaron Berkowitz concluded that 'proficiency in harmony is a pre-requisite in improvisation' because harmony represented the 'currency by which the raw materials of improvisation could be transmitted'. Aaron Berkowitz, *The Improvising Mind Cognition and Creativity in the Musical Moment* (Oxford: Oxford University Press, 2010), 26-27.
[370] C.P.E. Bach, *Essay on the True Art of Playing Keyboard Instruments* [1753] translated and edited by William J. Mitchell (New York: W.W. Norton, 1949), 430.
[371] Czerny, *Letters*, 75.

sketches. While it might have seemed ironic that Rink is using sketches to discuss Chopin's improvisations, sketches for Chopin fulfilled a slightly different function than, for instance, those of Beethoven. For most of Chopin's sketches, they are notes taken after his improvisation or experimentation on the piano whereas for Beethoven, sketches document a worked-out process of various stages of his compositions. With the aid of sketches, Rink was then able to work backwards to see what the improvisation comprised of. He observed that in the *Polonaise-Fantasy* 'Chopin notated the work in large, continuous sections,' 'without apparent difficulty' in main sections including the polonaise theme, developmental sections and the coda.[372] From the 'continuous drafts,' it becomes evident that Chopin's compositional process involves a sense of continuity and a forward direction of thought with each motive leading to the next. Yet this raises a question: what might have guided Chopin's improvisational process? Unlike Eigeldinger, Rink's approach to Chopin's improvisation was articulated much more systematically through his survey of a series of Schenker's writings on improvisation spanning over a thirty-year period. From Schenker's theory of improvisation on sonata form, Rink concluded that two fundamental premises lay the groundwork for improvisation to take place: firstly, 'the prolongation of a remote structure - a 'basic plan' or model - which is linked directly to the middle-ground or background' and secondly, 'the prolongation of that structure in improvisation […] through diminution, specifically, diminution of the fundamental line'.[373] These premises echo some of the advice given on harmony in improvisation treatises. For Rink, his starting point was a hypothesis that Chopin's working of the *Polonaise-Fantasy* was guided by 'references to a number of tonal outlines' which then allowed him to sketch out 'the continuity-drafts in the "sweep of improvisation"' that Schenker contended.[374] Rink then went on to demonstrate his hypothesis via Schenkerian analysis.

Despite the presence of sketches, Rink admitted that his analytical observations on Op. 61 were 'highly conjectural' and should not be seen as leading to conclusive judgements.[375] While these sketches showed that Chopin was able to compose continuously in certain sections, they did not reveal whether there was a 'basic plan' (or numerous tonal outlines) to which he worked, or whether perhaps it was simply a case of what Eigeldinger identified in relation to Op. 45 as a spur of creativity. As a result, even with the presence of sketches, Chopin's process of composing poses a problem for any analyst who wishes to pin down the initial idea. Did the haptic sensation come before a structural

[372] John Rink, 'Schenker and Improvisation' *Journal of Music Theory* Vol 37 No. 1 (Spring 1993), 32.
[373] Ibid, 8.
[374] Ibid, 33.
[375] Rink writes that 'although highly conjectural, this interpretation of the sketches and of Chopin's compositional process in general can be justified at least in part if the successive tonal structures that might have served the composer as "basic plans" are extrapolated from the draft and compared to the rest of his music'. Ibid.

consideration or vice versa since there is no way of identifying the exact order of his thought process? At its best, one can only infer, based on the given primary sources and the score. Nonetheless, this should not diminish the value of such research since, as Rink recently wrote, the 'utility of a given analysis will depend at least in part on what one wishes to do with it'.[376] In this instance, Rink's analysis was aimed at demonstrating that Chopin's improvisation took place over a 'basic plan' whereas for Eigeldinger, Chopin's improvisation was a result of a preluding tradition from Beethoven and an inspiring conversation between friends as recounted earlier by Sand.

From a broader perspective, discussions of improvisation, including those of Rink and Schenker, tend to lean towards the organisation of harmony, modulating principles and musical structures. In the teaching manuals for improvisation, harmony and knowledge of through bass are often emphasised so that the amateur musician acquires some of the basic knowledge required for improvisation. In some ways, such prioritising of harmony obscures qualities of spontaneity, creativity and what Czerny speaks of as leaving 'everything to fingers and chance'. The methodology that I will be proposing in the next chapter, haptic exploration, takes the practice of improvisation as a point of departure. While the treatises of improvisation by Czerny, Bach and Verling, theories by Schenker and Rink's article have demonstrated that an improvisation takes place over a basic harmonic progression or a 'basic plan', the study of haptic exploration reverses the priority by investigating, that granted the musical knowledge that Chopin had acquired, the extent to which the role of his hands influences the harmonic and thematic organisation of his compositions.

## The Irony of Chopin's Improvisation

Although recent scholars have acknowledged the element of improvisation in Chopin's smaller works, including his preludes, nocturnes and polonaises, it is striking to find an absence of discussion of this practice within his sonatas.[377] The omission of research in this area among his early biographers was perhaps due to the efforts of Chopin scholars to protect him from the campaign against virtuosity, an aspect of concert life that, as we have seen, was marketed by the nineteenth-century press as closely related to improvisation.[378] More importantly, by the second half of the nineteenth century,

[376] Rink, 'The (F)utility of Performance Analysis', 144.

[377] For works relating to Chopin's improvisation in these smaller genres, see for instance Rink, 'Schenker and Improvisation', 1-54, J. Mackenzie Pierce, 'Ersatz Improvisation: Chopin's Op. 28 and the Published Prelude Collection' in *Piano Culture in 19th Century Paris* edited by Massimilano Sala (Turnholt: Brepols 2015), 291-312 and Nicholas Temperley 'Preluding at the Piano' in *Musical Improvisation: Art, Education and Society* edited by Gabriel Solis, Bruno Nettl (Urbana: University of Illinois Press, 2009), 323-341.

[378] Levin writes 'improvisation was lionised in the press as the ultimate form of virtuosity.' See Levin, *Seducing Paris*, 65.

the central role that improvisation played in Western music started to face resistance from writers influenced by the aesthetics of the work-concept.

Defined by a German tradition and an intellectual rigour typified by Beethoven, the sonata genre further suggests the incompatibility of improvisation with work-oriented aesthetics. Analysts of this most intellectual form available during the nineteenth century demand a thoroughly worked-out methodology from genesis to completion, as seen in most of the sketches by Beethoven. The previous discussion of Rink's article serves as a testament. Although aiming to discuss Chopin's improvisation using Schenker's theory on improvisation in sonatas, Rink seems to have constantly evaded Chopin's sonatas as case-studies to test the theory, preferring other works such as the *Mazurkas, Polonaise-Fantasy* and *Barcarolle*.[379] Doing so is nonetheless questionable, since he chose to use Schenker's sonata model for the purpose of his paper.

Similarly, among twentieth-century Chopin scholars of the sonatas, there exists a general tendency, from Hugo Leichtentritt in the 1920s to Alan Walker in the 1960s and Anatole Leikin in 1990, to regard them as worked-out pieces of music rather than examples of Chopin composing through his experimentation at the keyboard, an essential element in Chopin's compositions that has been acknowledged by many of his contemporaries in the abovementioned letters.[380] In the studies of these previous scholars, there is a tendency to forcefully align Chopin's sonatas with the German heritage and thus to downplay the improvisatory element, with the result that much of his original contribution to the genre is lost. In my analysis of the idiomatic figurations of both of these sonatas I aim to demonstrate that the genesis of the works has improvisation and haptics at its core.

[379] Rink, 'Schenker and Improvisation', 1-54.

[380] Leichtentritt*, Analyse der Chopin'schen Klavierwerke*, 211-230. Leikin, 'The Sonatas', 160-175. Walker, 'Chopin and Musical Structure', 239-249. Réti, *The Thematic Process,* 298-310.

Chapter 6: Haptic Analysis of Chopin's Sonatas

In the earlier chapters, I demonstrated that various haptic procedures guided Chopin's construction of his compositions, and that Chopin's improvisations at the piano continuously served as an indispensable tool for his inspiration. Using both scores and video clips, this chapter reveals how Chopin's improvisation and haptics might have served as a springboard for his construction of both the sonatas. In addition, I will extend the mode of analysis that I have used earlier in Chapter 2 on his works of smaller forms to the sonatas.

Apart from his unique mixing of genres (as discussed in Chapter 4), Chopin's haptics also contributed to important aspects of the sonatas' figurations, texture, counterpoint/voicing and rhythmic elements. These elements have often been neglected by analysts where the focus has always been placed on form, harmony and thematicism. Since analysts have only considered Chopin's sonatas from formal, structural and harmonic perspectives, none has drawn parallels between his composition technique and approach to the piano.[381] Through my playing of both sonatas, coupled with my detailed investigations of his other pieces and a close reading of his *PM*, I seek to explain how the development of Chopin's thematic materials, textural ideas and figurations are also dependent on his haptics. Such procedures consider his ideas of piano techniques, which were recorded by him in his *PM,* alongside harmonic procedures and techniques of thematic transformation. As this chapter will reveal, in Chopin's development of thematic ideas and linking passages, the physical shape of the hand is often given primacy over other compositional considerations. In other words, Chopin negotiates his haptics with his knowledge of harmony and the sonata form leading to an eventual product that corresponds to the structural and harmonic demands of the sonata form.

Between Haptics, Idiomatic and Ergonomics

While I used these terms: haptics, idiomatic and ergonomics rather interchangeably in the earlier chapters, these terms must be defined with clearer perimeters in this chapter. Idiomatic is used in relation to the affordance of the instrument, that a passagework when played, despite its difficulty suits the mechanics of the instrument. David Huron and Jonathan Berec have explained that 'what makes something idiomatic is not that it is easy to play, but that it is easier to play given the specific prescribed circumstances compared with other possible performance circumstances'.[382] Huron and Berec used idiomatic compositions for trumpet to demonstrate how their idiomaticity will be lost if there was a change in key, tempo and dynamics. Like haptics, ergonomics comes from the Greek word

[381] In chapter 3, I discussed how earlier analysts have analysed his sonatas using harmonic and motivic analysis.
[382] David Huron and Jonathan Berec, 'Characterizing Idiomatic Organization in Music: A Theory and Case Study of Musical Affordances' *Empirical Musicology Review* Vol. 4, No. 3 (2009), 119.

ergon and nomos, which means work and natural laws respectively. Extending its Greek origins, ergonomics is used to explain the extent to which a passagework when executed fits the natural capacity of the hand. I use the word haptics more specifically in relation to touch. Because haptics concerns an individual sense of 'touch', I am interested in how Chopin's keen sense of touch, based on the physical shape and capacity of his hand contributes to various keyboard patterns and thematic ideas. Drawing back to an earlier discussion of Chopin's preferred key of B major, this was ultimately based on these 3 factors: firstly, the affordance of the keyboard where the black keys are levelled above the white keys. Secondly, the ergonomics of the hand, where the three long middle fingers rest comfortably on the black keys, allowing the two shorter fingers to rest on the white thereby producing a natural curve arch shape of the hand. Thirdly, Chopin's haptic process of discovering how to fit the ergonomics of his handshape to the keyboard. Linking such observations to his compositions, it is evident that as a result of Chopin's haptic processes, his eventual melodic ideas and figurations are ergonomic to his hand and idiomatic to the instrument.

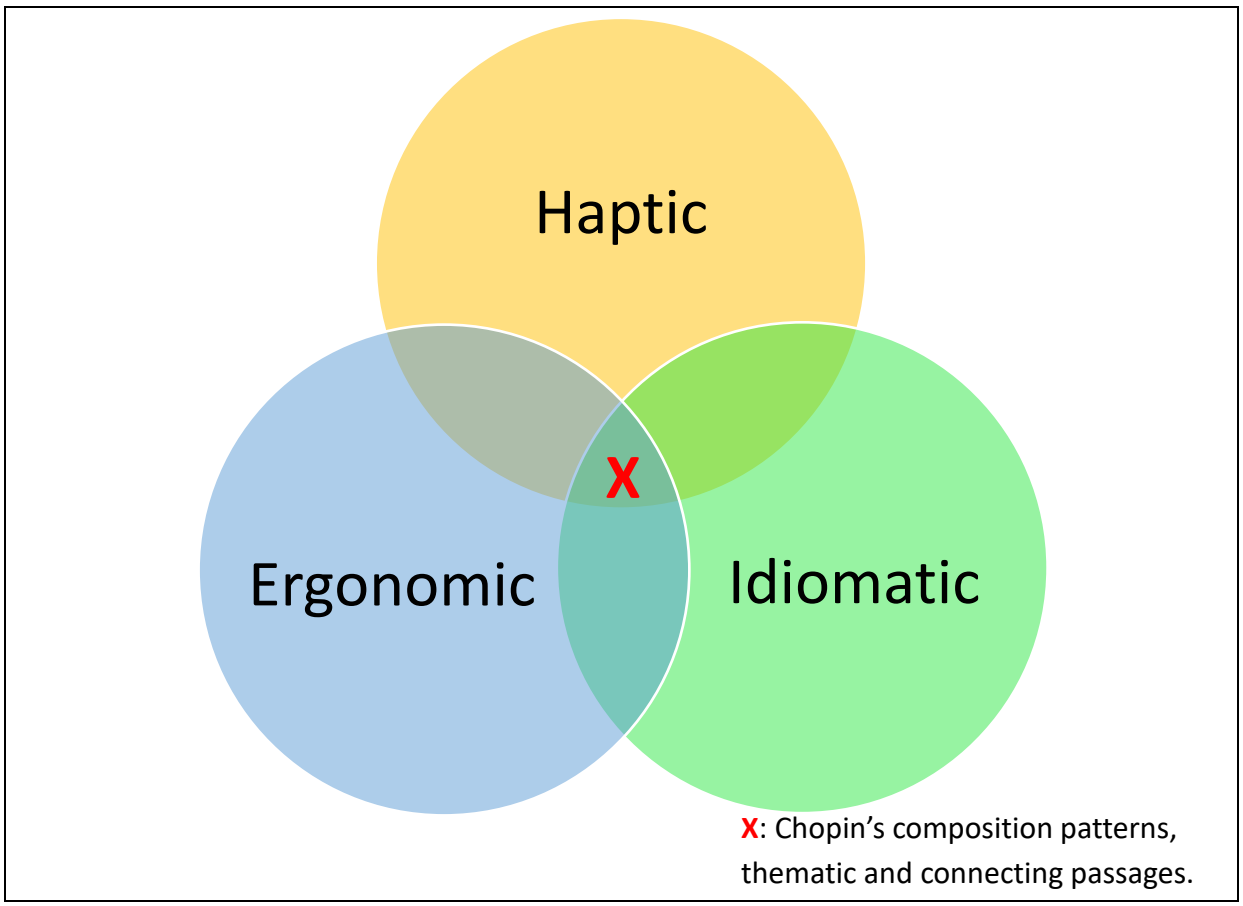


Figure 6.1 Venn Diagram of Chopin's Composition Ideas

The passagework and thematic ideas that Chopin develops then lies at the intersection of the Venn diagram in figure 6.1. This approach to the keyboard is also further supported through the ideas left in his *PM*. A few haptic procedures dominate his sonatas. These procedures dealing with micro

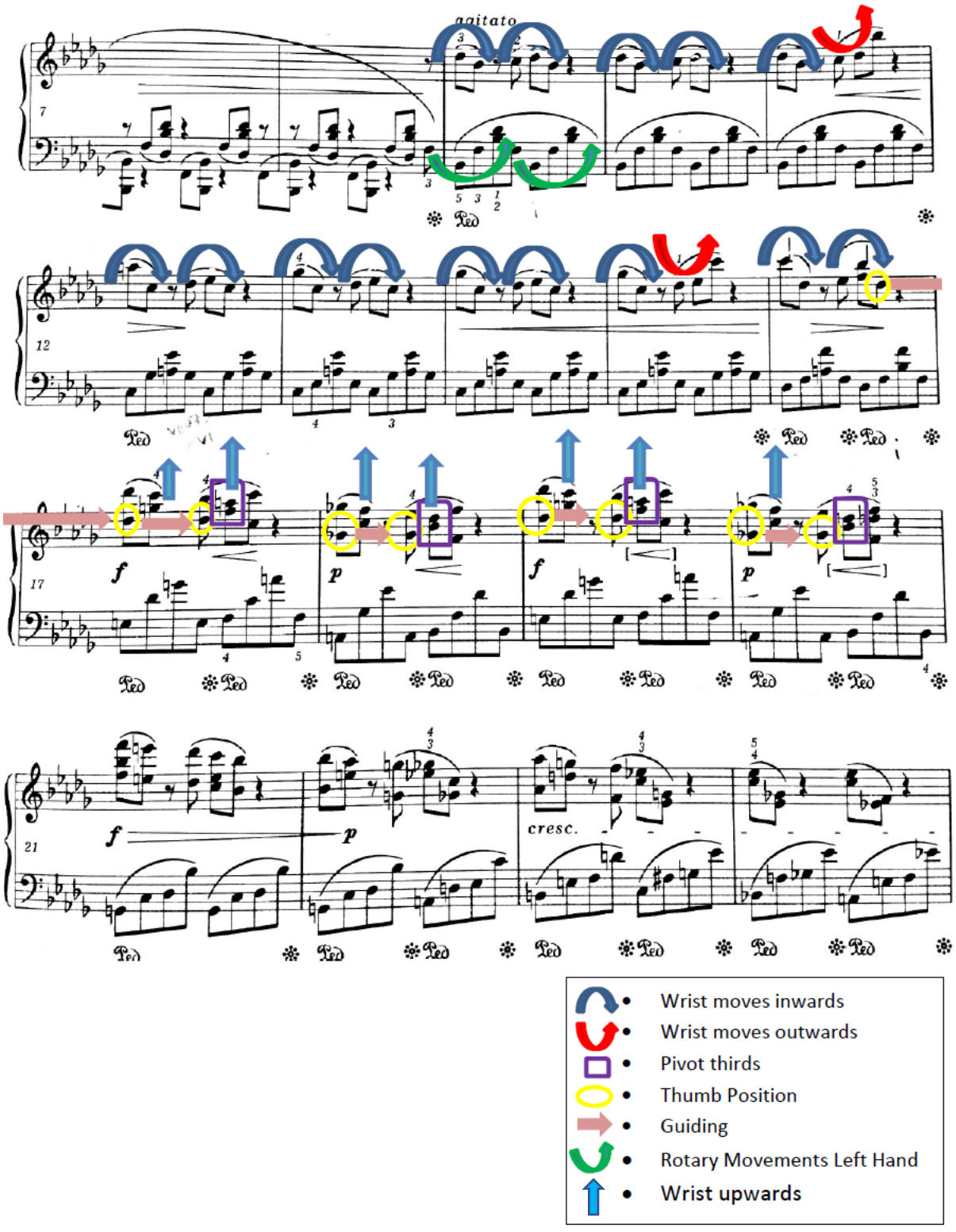
aspects of the sonatas' composition will be classified broadly as haptic improvisation, haptic hemiola, haptic counterpoint and haptic exploration. The first three types of physically-driven improvisation fall under the umbrella of the last procedure. The definition of these terms is summarised as follows:

1. Haptic improvisation: a motive or passagework that is developed in small portions, motivated physically and facilitated by the shape of Chopin's hands. This process also connects to Chopin's muscle memory of previous haptic shapes used in previous compositions.
2. Haptic hemiola and haptic polyrhythm: a physical form of polyrhythm when the way that figuration is grouped means that the hands produce either a hemiola or two different meters (such as three against four) simultaneously. The hands are sometimes in synchronisation with each other (but cut across the meter), and sometimes create polyrhythm between them.
3. Haptic exploration: music that has come about after an apparent reflective and experimental process, motivated by the physicality of Chopin's hands.
4. Haptic counterpoint: textural layering of voices, usually facilitated by Chopin's long thumb.

The following discussion of Op. 35 and Op. 58 will be based on these four categories of haptic procedures. While it is obvious that both Chopin's sonatas follow the sonata form closely, the note choices in terms of harmonic/chordal figurations and voicings, and other textural considerations, rhythmic devices, spacing of notes and their eventual patterns are inevitably dependent on Chopin's haptics. In sum, these components form the micro aspects of both the composition procedures in his piano sonatas. Since the sonata form demands that the composer adhere to a certain set of rules and structure, unlike a fantasy, it becomes interesting to observe how Chopin negotiates his haptic procedures (the micro) such that it still fits the overall structural demands of the sonata form (the macro). From a performer's perspective, his primary consideration of writing idiomatically for the piano and his hands introduced another way of uniting the four-movement work, both on a local and a global level.

Haptic Improvisation

The manner in which Chopin develops his primary motives in the first movements of Op. 35 and Op. 58 shows an incremental improvisation technique where the 'repeating' melodic idea is never repeated identically. Instead, it develops little by little, is juxtaposed against a slightly different accompaniment, and is extended or intensified through harmonic doublings to reach a new goal. Furthermore, because the melodic idea is dependent on what has come before, often, the resulting figuration is ergonomically written for the hands.




Example 6.2 Chopin Op. 35/I Bars 7-24[383]

[383] Music examples used in this chapter for the haptic analysis of Chopin's Op. 35 and Op. 58 are taken from Fryderyk Chopin, *Sonaty Op. 35, 58* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2010). See page 11 for this example.

Where other analysts such as Réti have used motivic analysis to explain how Chopin developed his primary theme, I propose an alternative method using haptic procedures. In example 6.2, Chopin repeated the primary melodic idea in bar 9 to bar 10, one that contains two inward wrist movements of the right hand as demonstrated in the video.[384] In the second half of bar 11, Chopin changed the direction of the wrist movement while staying on the same tonic harmony. This change in direction of wrist movement could been seen as a haptic impulse which subsequently prompted him to move to a new harmony, a diminished seventh, in bars 12-15. The left hand retains a basic rotary movement while moving across various harmonic progressions. The manner in which these 8 bars have unfolded mirrors haptic procedures which I have exemplified in his other compositions. Such close physical proximity of the figurations (bars 12-15) to its preceding bars and similarity of haptic movements suggest that Chopin discovered it through haptic improvisation on the piano as opposed to working it out on paper. The next 8 bars contain a thickening of texture in the melody, where octaves, fourths and thirds are used in the right hand, and leaps are widened in the left hand.

In the second half of bar 15, an outward movement of the wrist similarly prompts another change of harmony and introduces new textural ideas in the following bars. Harmonically, at bar 15, the diminished 7th functions as a dominant and thus sets an expectation moving towards tonic at the start of bar 16. Chopin, however, while trying to retain the same haptic shape of the left hand as in previous bars, at the start of bar 16, ascends the bass stepwise to D♭ while leaving the A♮ on the index finger. This leads him to a suspension before temporarily resolving to the tonic in first inversion in the next half of bar 16. This delayed resolution could be viewed as a case of him trying to negotiate his haptics with the musical syntax of cadencing which he eventually resolves correctly by introducing a tinge of B♭ minor in the third line of counterpoint: C in right hand moves down to B♭ and A♮ in the left hand moves up to B♭. Since the bass is not in the tonic key of B♭, the stepwise movement from C- D♭ does not sound the resolution which therefore requires further continuation of thematic materials.

The extension of thematic materials in the subsequent bars is also heavily dependent on haptic considerations. At the end of bar 16, the double dyad of the perfect fourth in the right hand leading to the D♭ played by the thumb, gets the hand to a prepared position for the ensuing figuration (see pink arrow). At the start of bar 17, an extension of the hand leads the pianist to the D♭ octave, played by the stronger fingers while a contraction of the hand pushes the wrist upwards to the perfect fourth using the weaker fingers. The second half of bar 17 retains the D♭ played by the thumb thus ensuring that the hand position remains the same for the major sixth interval while the major third

[384] See video example 6.2a.

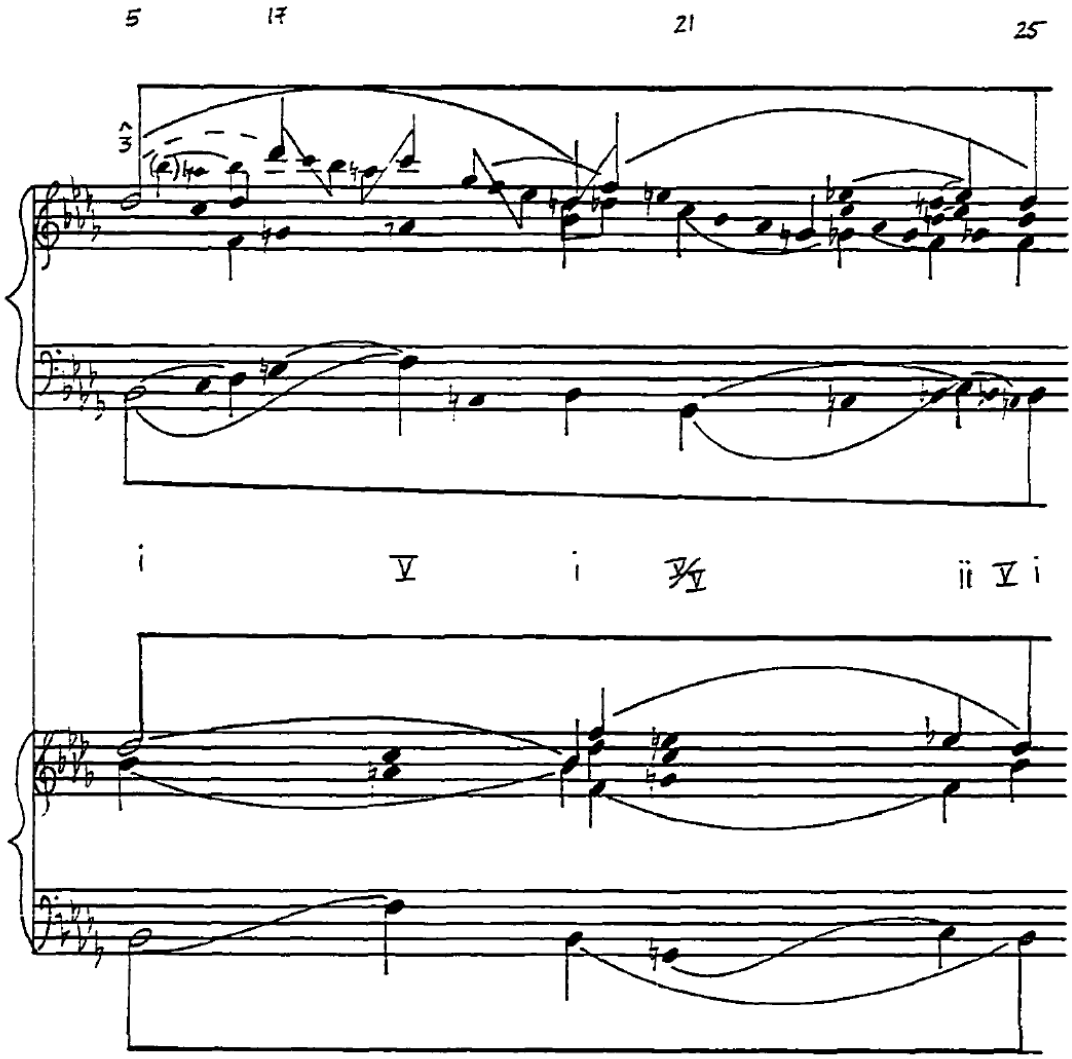
interval F-A♮ in between acts as a pivot for the hand to expand outwards to an octave C. Perhaps as a result of the comfort of these haptic movements, the next three bars 18-20 are built based on such movements. A recording of these four bars at slow motion further exemplifies these necessary movements involved when performing this segment. From a high angle, the right-hand thumb can be seen to guide and prepare the hand in position for other intervals while the video taken from the side demonstrates the vertical upwards and downwards movements of the wrist as a result of these pivots in place.[385]

Upon arriving at the climax of the first section, bar 21, a series of parallel octaves finally replaces the initial figuration for both dramatic and virtuosic reasons. Evidently, in this example, the change of harmony and the introduction of new melodic and textural ideas have coincided with some of Chopin's haptic impulses. Although highly conjectural, it is possible that Chopin worked out the entire section based on the materials that have come before and developed them incrementally each time based on his haptic procedures, instead of using the primary motive as a fixed idea and varying it by thematic transformation. A harmonic analysis of bars 1-25 reveals a tonal harmonic plan of i-v-i-v/v-ii-v-i.[386] Yet, within this harmonic framework, the choice of notes that form motivic and thematic ideas have been adapted intervallically to conform to Chopin's haptics. To capture a broader perspective, three video clips have been recorded from the side and high angle at tempo and also from the side angle at slow motion to demonstrate how the various wrist movements and pivots coincide to unfold the thematic materials from bars 7-24.[387]

Interestingly, when Chopin introduces the use of octaves in the right hand in bar 17, the left hand dyads on the weaker beats 2 and 4 disappear. The use of double sonorities on the weaker beats in bars 9-16 not only gives the theme some harmonic interest, it also steers the pianist away from accenting the weaker beats. When a sudden outburst of sonority is demanded, Chopin then removes the doublings of notes and thus allows the thumb to receive less restriction from the second finger, giving it more flexibility from the wrist to produce a stronger *forte*. This flexibility from the wrist in turn allows the pianist to control the softer contrast with ease. Such a development of theme with haptic procedures and pianistic considerations therefore goes beyond the variation technique that Leikin focuses on as I discussed in Chapter 3.[388]

[385] See video examples 6.2b and 6.2c.
[386] See example 6.3 (below) for a Schenkerian graph of bars 1-25.
[387] See video examples 6.2d, 6.2e and 6.2f.
[388] Leikin, 'The Sonatas' in *The Cambridge Companion to Chopin* edited by Jim Samson (Cambridge: Cambridge University Press, 1992, 160-188.

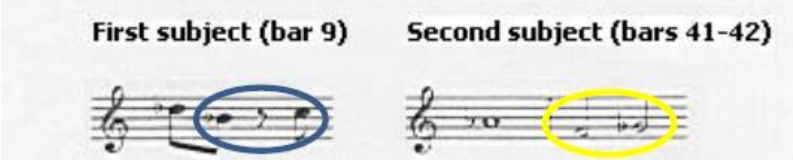
In contrast to my framework provided by haptic analysis, in example 6.3, Janice Arnold uses a Schenkerian analysis graph to give an overarching view on how the tonic and dominant relationship plays out in the opening theme. Nonetheless, a reductive method such as this misses out intricate details such as the delayed resolution point at bar 16. Although a harmonic reduction of the piece is useful for a large-scale work, it does not capture details revealed by a consideration of the haptic process.




Example 6.3 Schenkerian Analysis Bars 5-25[389]

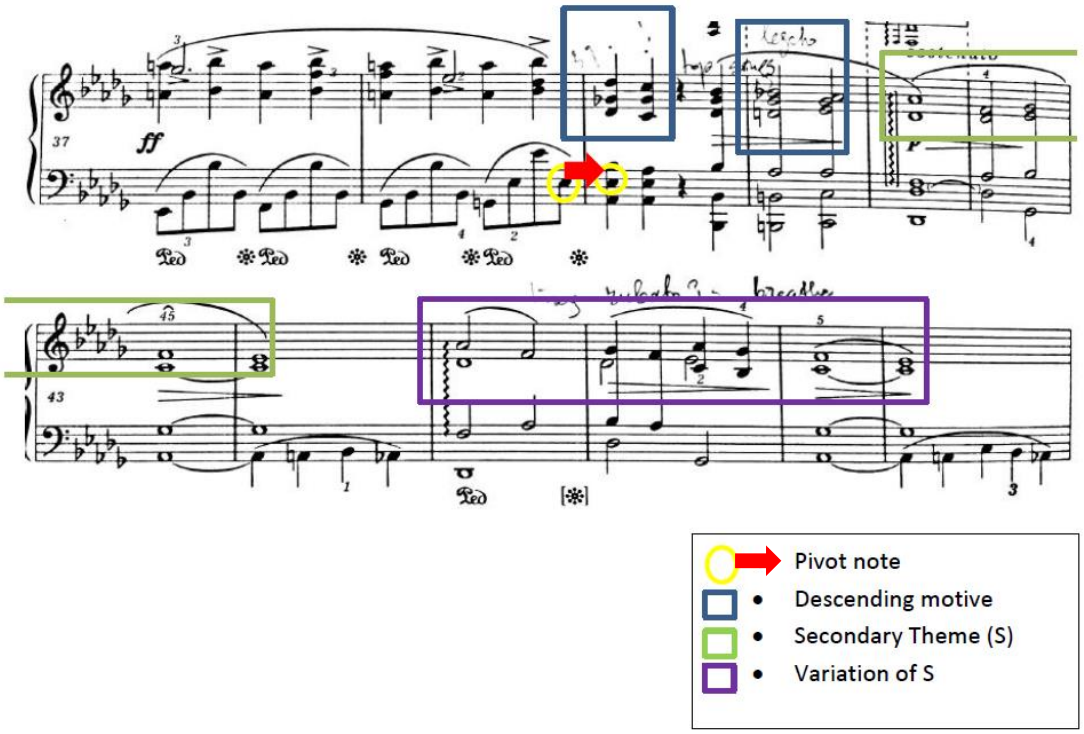
[389] Analysis taken from Arnold's PhD Dissertation see Arnold, 'Chromaticism Chopin Sonata', 135. The top stave, LH G (V/V at b.21) lacks a natural sign.

Previously, in Chopin scholars' efforts to prove structural unity in Op. 35, the secondary theme of the exposition was argued to be a derivative of the primary theme since they both shared an overall melodic shape.




Example 6.4 Adapted from Réti's Analysis[390]

In Réti's analysis example 6.4, thematic affinity is demonstrated by the falling third followed by the rising second intervals. Judging from the similarities between the basic shape of the primary and secondary motives, there is therefore a strong case for arguing that the exposition is monothematic. However, there is also an apparent connection between bars 39-40 and the introductory bars of the secondary theme. These bars thus fulfil a dual function of a connecting passage to the secondary theme and also a closing statement to the primary theme which Réti has not commented upon.



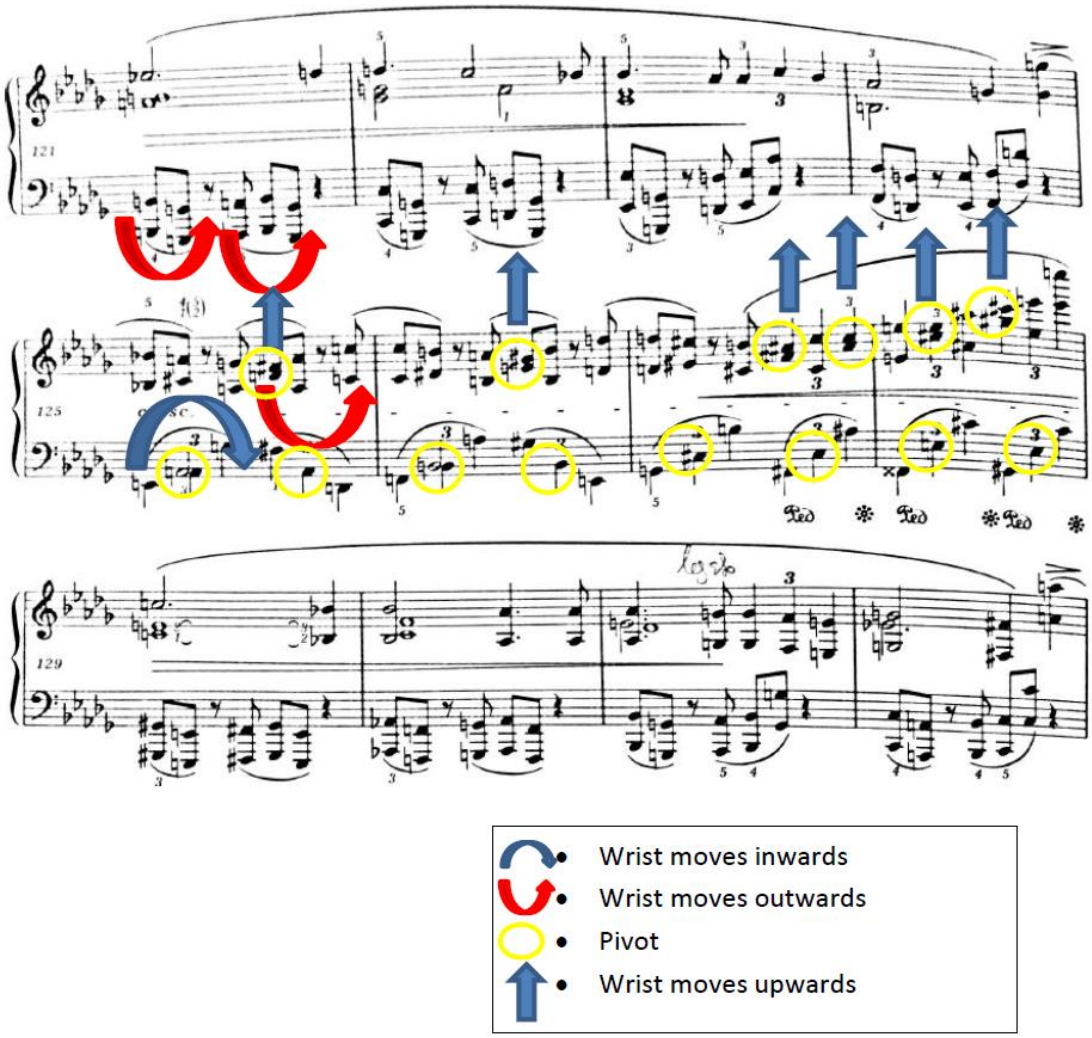

Example 6.5 Chopin Op. 35/I Bars 37-53[391]

[390] Réti, *Thematic Process*, 302.
[391] Chopin, *Sonaty,* 12-13.

In example 6.5, the four pairs of octaves alternating between A♮ and B♭ in bars 37 and 38 give way to the following descent of D♭-C in bar 39 and finally to B♭- A♭ in bar 40 (see squares marked in blue). Harmonically, the bass line of the accompanying relentless figurations that have dominated the entire primary theme ascends by step from E♭-F-G♭- G♮- A♭ before coming to a halt when longer note values replace the texture, thus setting the atmosphere for the lyrical secondary theme to take place. This ascent by step in the bass line not only allows a change in harmony, it also allows the hand to be kept close to the previous position. The last quaver of bar 38 in the left-hand acts again as a pivot note for the chords to follow thus ensuring that the pianist could focus on the right hand to prepare for that jump to D♭. The overall shape of the secondary theme that follows forms an overall descent, coinciding neatly with the previous two bars (see boxes marked green). By changing the right hand to crotchets starting in bar 37 with the same relentless accompanying quaver figuration, Chopin brought the first section to a climax while the descending chords that follow lead smoothly to a lyrical secondary theme. Within these bars 37-40, it can be observed that Chopin has thus cleverly and economically conceived a transition that ties both the primary and secondary (S) themes together. Upon arriving at S, Chopin's development of this nocturne-like theme from bars 45-80 displays improvisatory qualities where the same S theme is juxtaposed against various harmonic doublings while keeping to the same harmonic progression and melody.

Haptic Hemiola and Polyrhythm

Rhythmically, a hemiola is a grouping in three groups of two that cuts across a meter indicating two groups of three, while polyrhythm occurs when two different groupings of notes cut across each other. Perhaps due to Chopin's liking for a type of 'feel' on the keyboard, his figurations, at times, force a physical hemiola or polyrhythm. In other words, such rhythmic features are articulated by the hands through a physical movement rather than an indication of slurs, accents or couplets on the score. The construction of the pianistic figurations in Op. 35's development section demonstrates such an example.




Example 6.6 Chopin Op. 35/I Bars 121-132[392]

While in bars 121- 124 the primary motive is being transformed into octaves in the bass clef, Chopin's choice of doubling the notes in the treble not only further supports the chromatic harmony. At the same time, it facilitates the movement of the hand, such that a legato line can be formed without the use of pedal. Instead of keeping the exact same rhythmic pattern of the primary motive, Chopin keeps only the second half in bars 125-126. From a technical perspective, perhaps due to the physical demands, such harmonic doublings in the right hand force a polyrhythm against the steady triplet figurations in the left hand, leading both hands to move out of synchronisation with each other. From bars 125-129, the figurations in the bass clef, despite the huge leap between notes, are smoothed out by the middle notes which act as a pivot for wrist movement (see circles marked yellow).

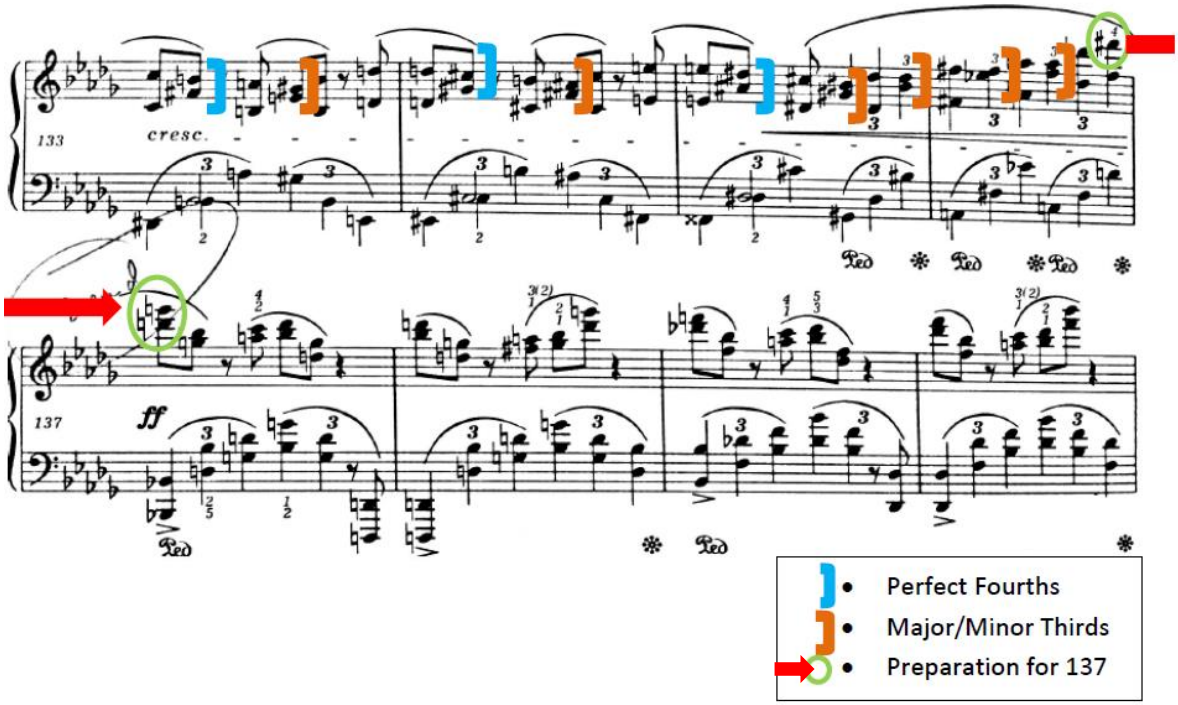
Similarly, the upward ascent in bars 127-8, with thirds and fourth sandwiched between the octaves in the right hand (rather than as parallel octaves), again hints that Chopin's figurations are

[392] Chopin, *Sonaty,* 16.

motivated pianistically. Apart from an idiomatic passage, the thirds and fourths in between the octaves force the right hand into groups of two, while the left hand remains steadily in groups of three. As a result, despite having the figurations in both hands marked as triplets, the grouping of physical movements in pairs in the right hand cuts across the left hand triplet, thereby creating what I have termed as a 'haptic hemiola'. Three video clips have been recorded to further explain this. From a top angle, I have recorded both hands separately in two different videos in slow motion, demonstrating the groupings of threes in the left hand and twos in the right hand.[393] When played together, as demonstrated in the next video, the different groupings of notes forces a physical hemiola where both hands move out of sync with each other.[394] A similar passage consisting of this haptic hemiola in bars 135-136 has also been recorded.[395] Musically, this haptic hemiola has served as a way for Chopin to achieve a climax and create a built-in rubato.

It is important to note that up until bar 129, Chopin keeps the dynamic levels between *piano* and *pianissimo* with few other dynamic 'hairpins' in between. From the listener's point of view, the *crescendo* in bar 125 might have been the signal for a climax, yet Chopin plays with this expectation and brings a restatement of the previous idea with slight adjustments to harmonic doublings. In the example below, although bars 133-137 might have seemed to be an exact reprise of bars 127-129, with the only difference in key, Chopin has arguably refined the pianistic writing in these later bars.

[393] See video examples 6.6a and b.
[394] See video example 6.6c.
[395] See video examples 6.7a, b and c.

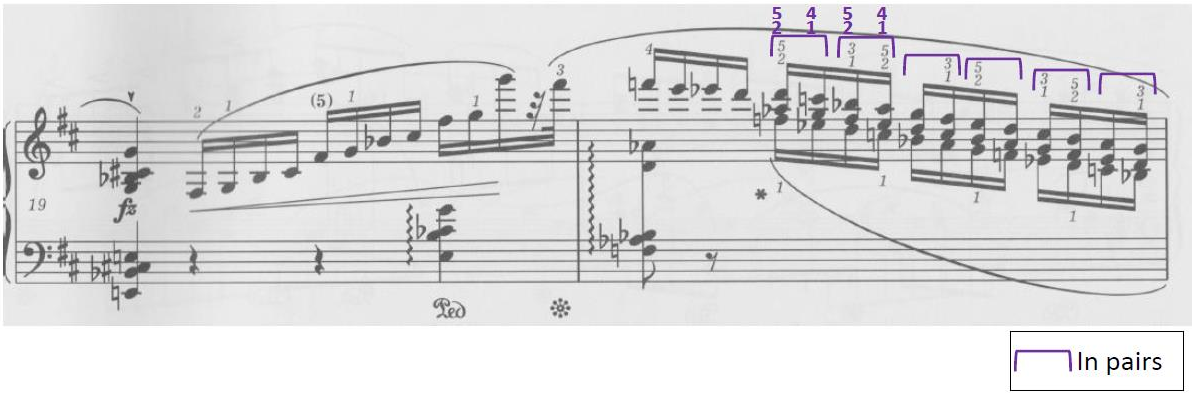



Example 6.7 Chopin Op. 35/I Bars 133-140[396]

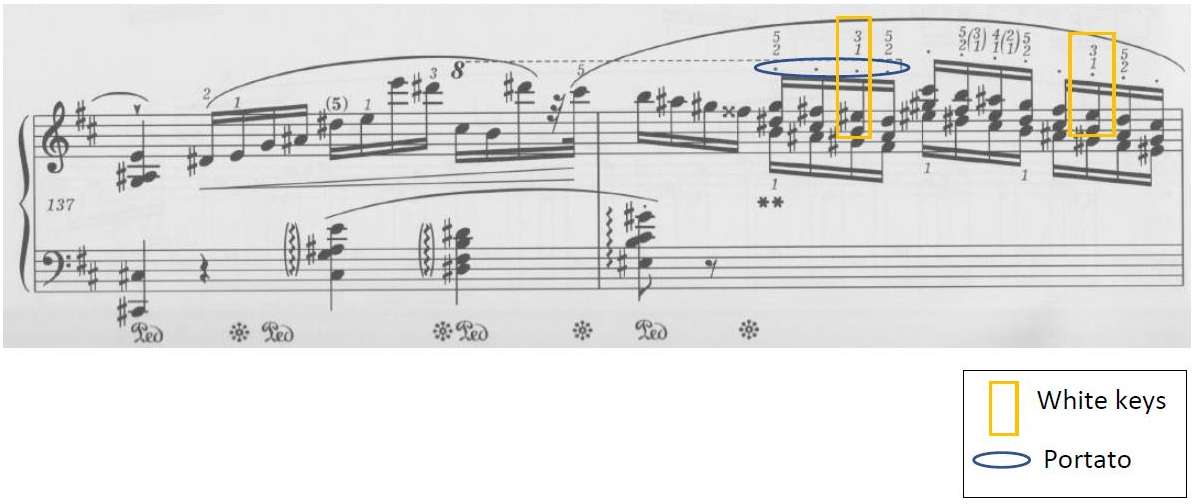
Instead of transposing previous material unchanged to fill up the later bars, Chopin's alterations in these transition passages reveal how his haptic process negotiates with his repetition of musical materials. By exploring through improvisation and further testing of his musical ideas on the piano, Chopin's adjustment of the minor sixth interval in bars 126-7 to the perfect fourth in bars 134-5 (while maintaining the pivot chords at a major or minor third interval in the upward ascent) fits under the hands more comfortably than before. The arrival at F# on the very last beat in the right hand gets the hand in a prepared position for the next section in G minor. Again, this allows the pianist to concentrate on diving to the bottom B♭ in the left hand without having to focus on the other hand. It is also interesting that Chopin, in finding a more pianistic writing, did not return to the previous bars to make any alterations. This is perhaps because he wanted to reserve the figuration that fits the hands better for the climax and that the climatic figuration is a musical and haptic development of the first.

Other than adjusting harmonic doublings to ensure that the same passage remains ergonomic when played in a different key, Chopin sometimes achieved this through varying articulation.

[396] Chopin, *Sonaty,* 16.




Example 6.8 Chopin Op. 58/I Bars 19-20[397]




Example 6.9 Chopin Op. 58/I Bars 137-138[398]

In Op. 58, when the same perfect fourth passage in the exposition is repeated in the recapitulation, Chopin adds staccato dots under the slur markings, indicating that the passage in the recapitulation is to be played as *portato*. As an indication for stringed instruments, when used in piano music, that would mean a slight staccato over pedal, where the pedal acts as a bow for the pianist.[399] The more interesting question here is, why did Chopin change the articulation?

[397] Chopin, *Sonaty,* 39. Fingering in this example is provided by Hans-Martin Theopold. Both Ekier and Paderewski provide fingerings that do not work well for my hand. In the source commentary (abridged) Ekier also includes fingerings of a Chopin's student. I did not discuss this particular set of fingering due to its reliability. Ekier explained that 'the fingering written in Chopin's hand in a pupil's copy is difficult to decipher on the photocopy available to the editors of the National Edition'. See Chopin, *Sonaty Source Commentary,* 3.

[398] Ibid, 48.

[399] 'Portato-The portato, or half staccato or half legato as it is sometimes called, lies halfway between the staccato and legato articulations. In essence, the portato articulation is a lightly articulated legato phrase with slight separations between the notes. It is notated by a slur over notes with dots above or below the note'. Mark C. Ely and Amy E. Van Deuren*, Wind Talk for Brass Instruments: A Practical Guide to Understanding and Teaching Brass* (Oxford: Oxford University Press, 2009),vvviii.

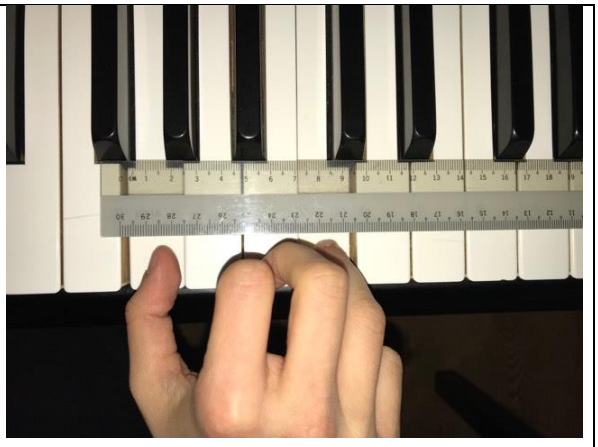
| | |
|---|---|
|  |  |
| A♭-D: 9.5cm | G-C: 9.5cm |

Table 6.10: Measurements of Keys (Modern Grand Piano)

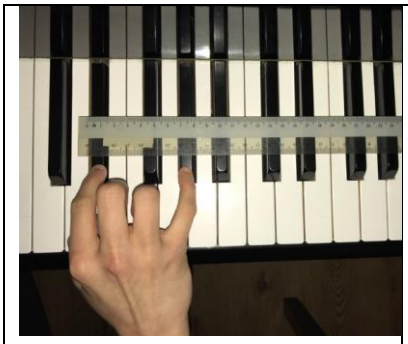
| | | |
|---|---|---|
|  |  |  |
| G#-D#: 8 cm | C#-F#: 8 cm | B-E#: 11.7cm |

Table 6.11: Measurements of Keys (Modern Grand Piano)

| | |
|---|---|
|  |  |
| G-C: 9.5 cm | A♭-D: 9.6cm[400] (0.1 cm difference) |

Table 6.12a Measurements of Keys Chopin's 1848 Pleyel

[400] As with the measurement of A♭-D from the modern piano, this distance is also calculated from the edge of A♭ to the edge of E♭ for consistency.

| |
|---|
|  |
| B-E#: 11.5 cm (0.2 cm difference) |

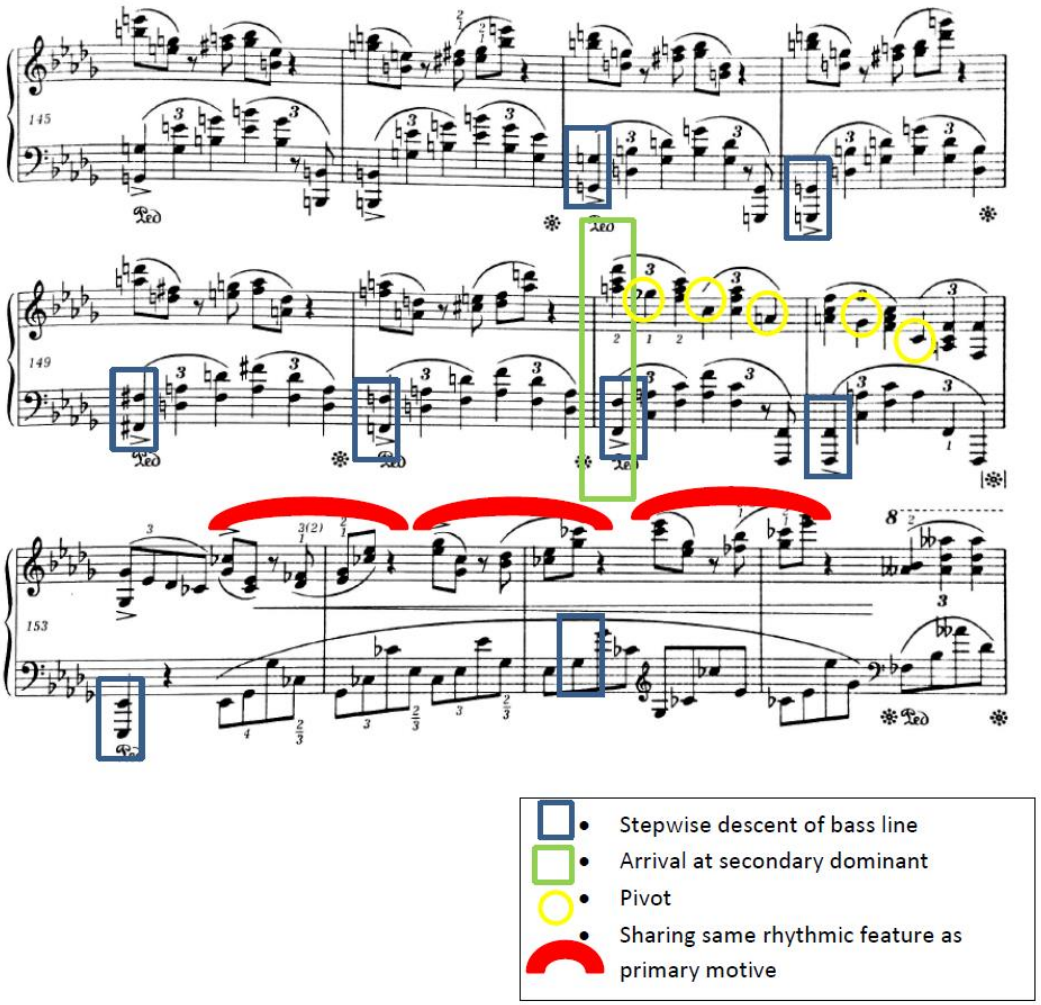
Table 6.12b Measurement of Keys Chopin's 1848 Pleyel

In the exposition section, because the perfect fourth passage is composed in the key of E♭ major, the intervallic shape between each perfect fourth interval is of almost equal distance (9.5 cm), see table 6.10, even when both notes of the interval are on white keys, G-C. Although challenging, it is still possible to play that passage entirely legato.[401] Comparing the same passage to example 6.9, because it is now composed in the key of B major, when the pianist gets to the third perfect 4th dyad B-E#, the haptic shape becomes much bigger (11.7 cm) than the preceding intervals, see table 6.11. Furthermore, in these preceding intervals, as both notes are played on black keys, the haptic shape is only 8 cm. Tonally and harmonically, although it is still a perfect 4th, the nature of the keyboard has created a difference in haptic shape because E# falls on a white key rather than a black key. No matter the fingering, it is highly improbable that a pianist will achieve a perfect legato when playing the same passage in B major.[402] Arguably, Chopin when composing this passage has understood the difference and therefore added a different articulation so as to accommodate the bigger haptic shape.

When this passage was examined on Chopin's 1848 Pleyel, a slight, smaller difference of 0.1-0.2cm was observed (see tables 6.12a-b). Whilst playing on this Pleyel, I did not recognise any significant physical differences in terms of intervallic shapes and thus, using the same technique and fingering enabled me to get me through the passagework. This process of verification using an 1848 Pleyel demonstrates that although Chopin composed using a keyboard instrument with a different mechanism to modern pianos, the different key lengths do not call for an entirely different technique or method of playing.

[401] See video example 6.8a for a demonstration at slow speed without the use of pedal.
[402] See video example 6.9a for a demonstration at slow speed without the use of pedal.

In Op. 35, the climactic moments in the following section recall the primary theme of the exposition. Figurations in the right hand are constructed based on sequential patterns which Chopin again makes adjustments to; the intervals that he chooses depend on the nature of the keys he has moved to. This haptic process ensures that the musical materials constructed are grammatically correct and that they fit well to his hands.

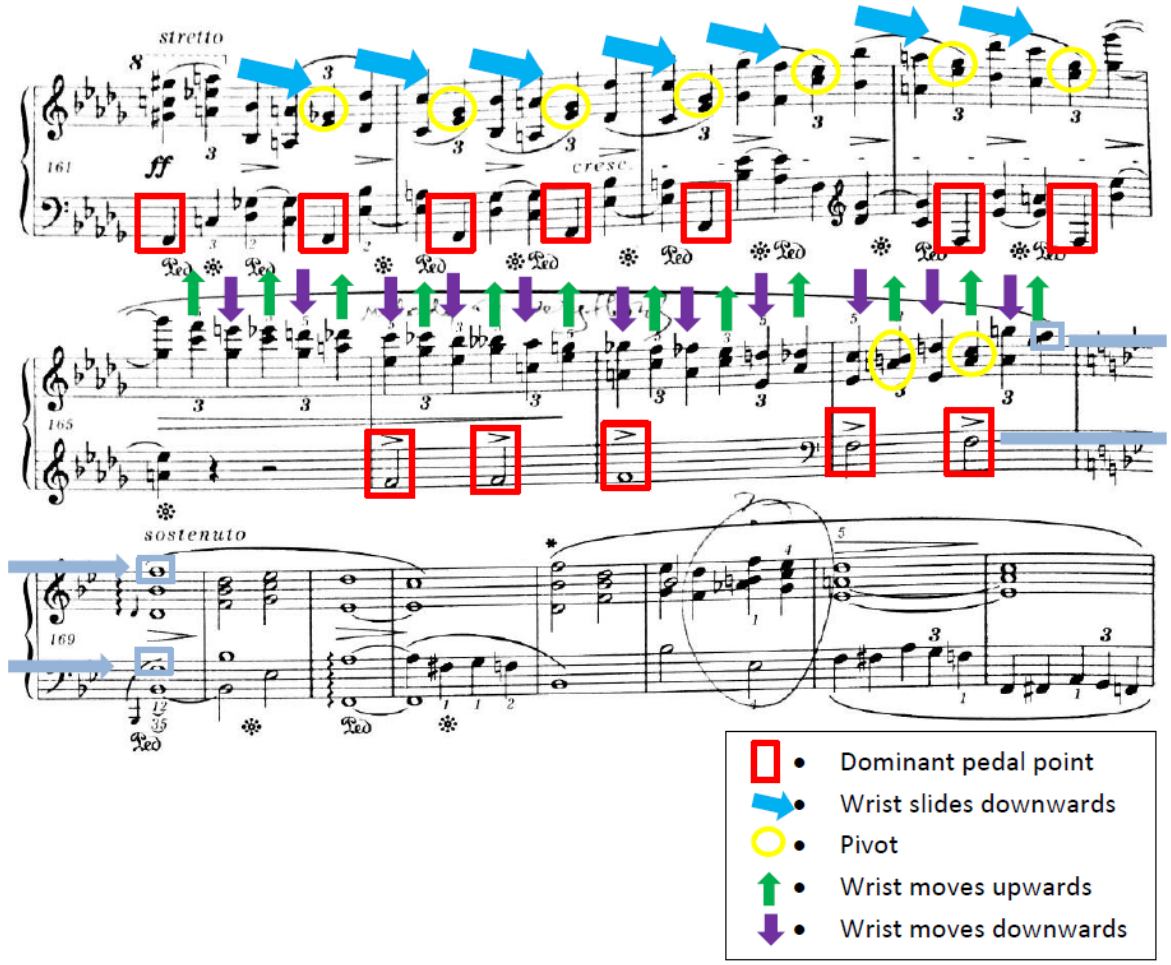



Example 6.13 Chopin Op. 35/I Bars 145-156[403]

By modulating chromatically through a descending bass line G-F#-F♮ starting from bar 147, Chopin finally arrives at the secondary dominant of B♭ major in bar 151. The construction of the next two bars, 151-152, consists of a haptic hemiola that I have explained earlier on. Despite having the right hand written out as triplets, the passage, when played, creates a grouping of twos. This is due to the thumb having to turn at the single note which also acts as a pivot for the following chord. A video

[403] Chopin, *Sonaty,* 17.

clip captured from a high angle at a slow tempo has been recorded to demonstrate the right hand's physical movement and the hemiola is captured when both hands play together.[404]



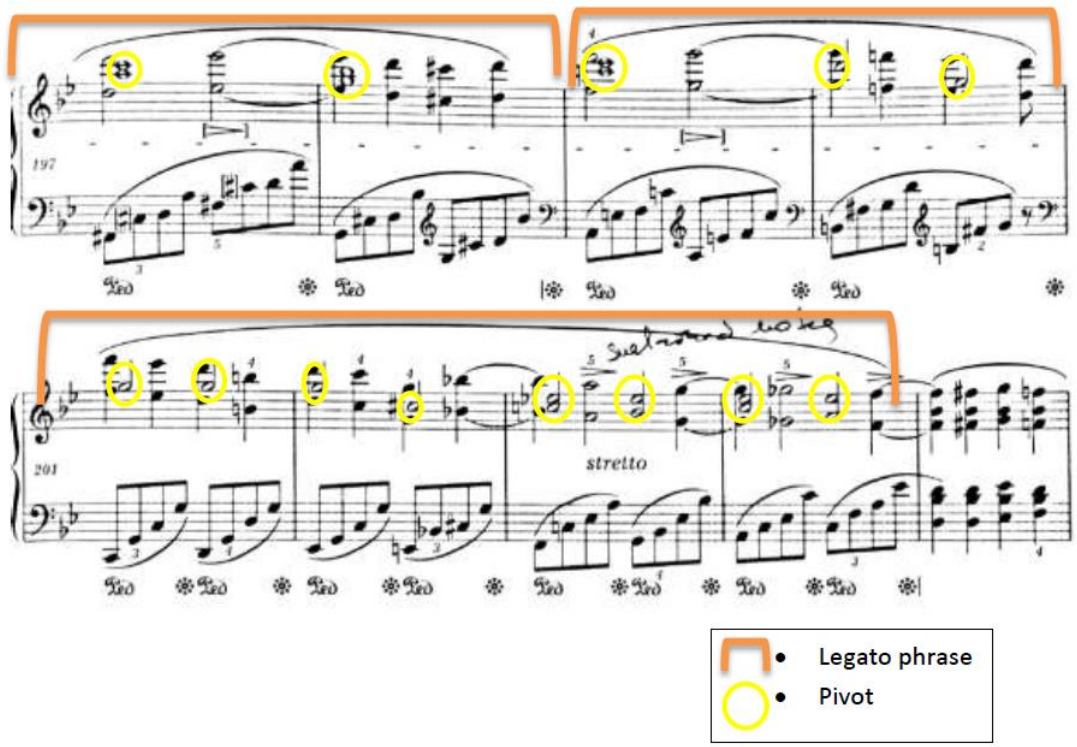

Example 6.14 Chopin Op. 35/I Bars 161-170[405]

Having arrived again at the dominant of B♭ minor in bar 161, Chopin used the same sort of haptic procedures from bars 136-137 in his preparation for the recapitulation, perhaps because he had 'perfected' the movement of travelling between octaves via thirds in the earlier bars. This time, the upward movement of the right hand, involving a sliding of the wrist downwards from a black key to a white key connected to the next group of figurations via a pivot note, is a lot more ergonomic than his previous attempts. Presumably, the comfort of this movement might have motivated him to mark this passage as *stretto* which nonetheless has taken him an octave too far up the keyboard by bar 165. Thus, a chromatic descent over the F pedal point has been put in place this time, one that involves an alteration of upwards and downwards wrist movements. The harmonic doublings of this descent not only support the overall sound at the higher register of the keyboard, but also allow a

[404] See video example 6.13a and b.
[405] Chopin, *Sonaty,* 18.

legato line to be achieved without too much effort from the hand. By fitting in the harmonic doubling, Chopin again distorts the cut time rhythm of 2 minims in a bar. Physically, the alternating upwards and downwards movement of the wrist results in the group of six quavers paired into 3 movements in the right hand which cut across the 2 minims beats in the left hand, again, creating a hemiola as a result of the physical movements involved. At bar 168, the upward wrist movement further acts as a pivot for the wrist to travel outwards to F so that the arrival of the secondary theme can be set up with the hands at a prepared position. Chopin's manner of decorating this dominant pedal point leading to the recapitulation exemplifies his haptic procedures.

The recapitulation of the secondary theme follows the general outline of its first appearance rather closely, with the exception of a few places where Chopin could probably have added harmonic doublings for both the treble and bass parts while improvising the theme on the piano. The main difference starts from bar 201.



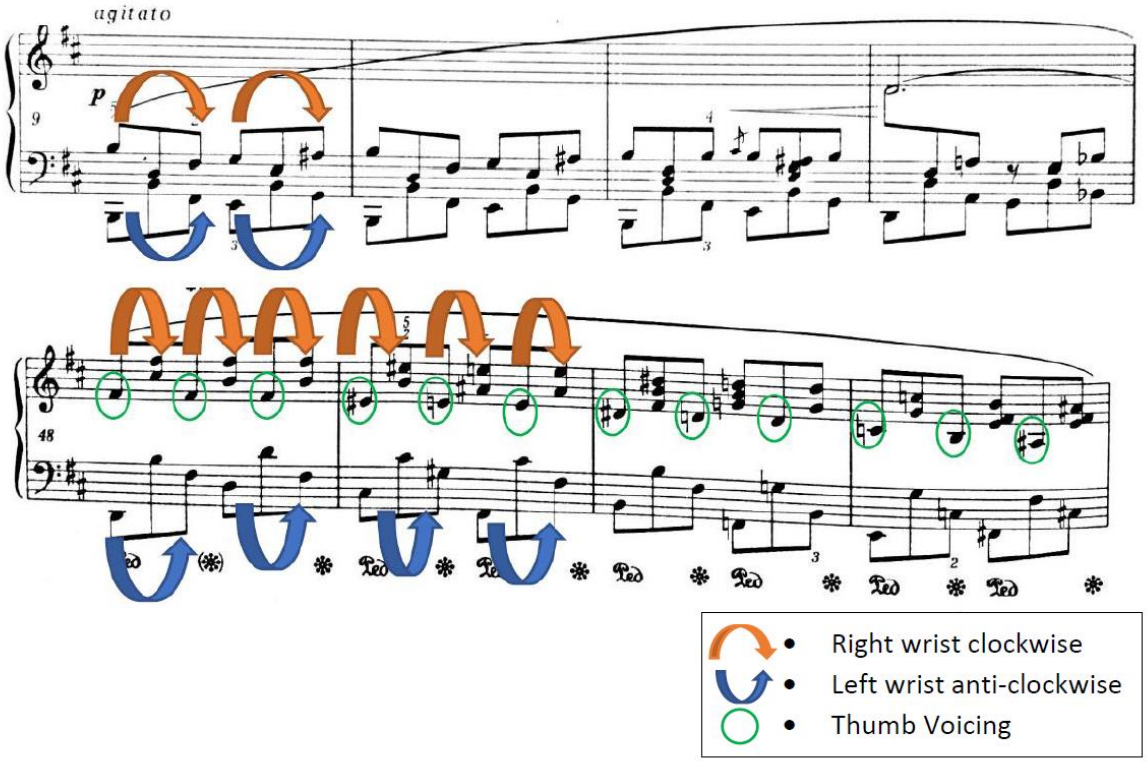

Example 6.15 Chopin Op. 35/I Bars 202-211[406]

This figuration of octaves interspersed with thirds and fourths was seen previously in the development section of bars 127-128 and bars 135-136. Chopin used it here again possibly because it allowed him to form a legato melodic line by moving over the thirds and the fourths as a pivot for the

[406] Chopin, *Sonaty,* 19.

hand. The next three bars, perhaps taking a cue from the previous bars, follow a similar hand-movement.

In the first movement of Op. 35, sections that involved haptic hemiola take place in transition or connecting passages. In Op. 58, haptic hemiola is used in more distinctive places such as the rondo theme of the last movement.



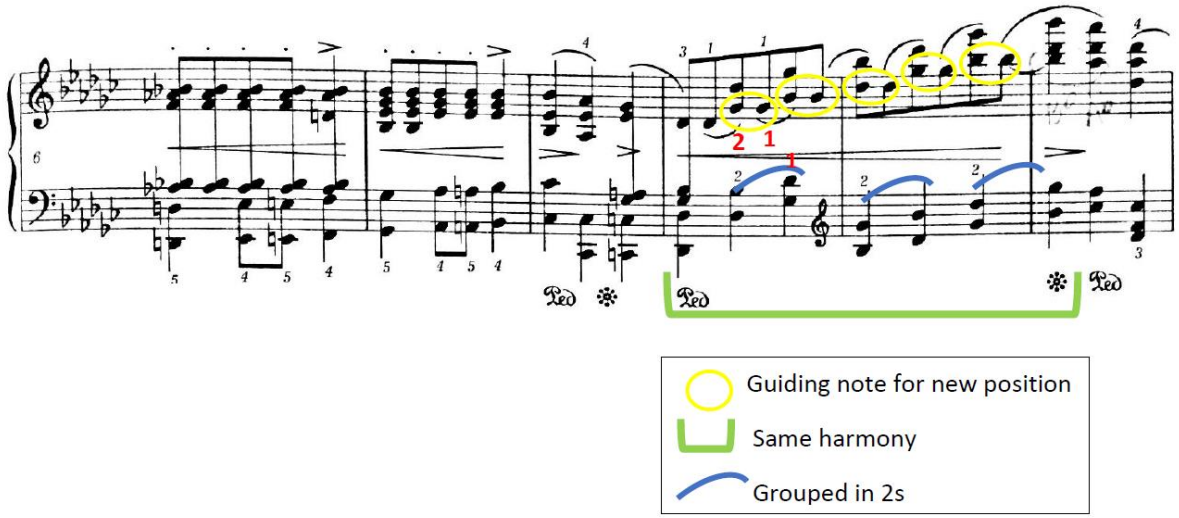

Example 6.16 Chopin Op. 58/IV Bars 9-12 and Bars 48-51[407]

The opening theme of this movement retains a haptic impulse that we have discussed earlier in chapter 2. In this instance, both hands perform this haptic impulse in contrary motion such that the duple time signature is also articulated by the hands: 2 rotary movements per bar. A video clip has been taken at slow motion to demonstrate the movements involved when playing the opening theme[408]. This haptic impulse carries on when Chopin rewrites the theme into octaves. At bar 48, when Chopin closes the opening theme, the rotary movement in the right hand becomes three clockwise movements so that the thumb can be used to articulate the chromatic line. The accompanying left hand remains as before. This is demonstrated in the video clip, hands separately, again at slow

[407] Ibid, 67, 68.
[408] See video example 6.16a.

motion.[409] What's striking here is that Chopin did not rewrite the six quavers into groups of three so that the voicing can be made obvious to the pianist through notation. Instead, he continues to notate the next four bars in groups of twos, most likely because he knows that even without changing the notation, the pianist's hand will naturally bring out the voicing in the thumb through the rotary movements that gravitate towards the thumb. Consequently, as in Op. 35, a haptic hemiola is created as the three rotary movements in the right hand cut across the two rotary movements in the left hand. Another two video clips, one at slow motion and the other at speed, have been recorded to demonstrate this haptic hemiola.[410]

In terms of structure, Chopin's Scherzo in Op. 35 takes the standard form of A-B-A + Coda. Within the Scherzo, he has embedded in the A section a Mazurka dance rhythm, and in the B section a Waltz. While the A section is highly virtuosic, in this case, most of the passagework is also ergonomically written for the hand.




Example 6.17 Chopin Op. 35/II Bars 6-11[411]

At bar 9, upon arriving at the tonic chord of G♭ major in second inversion, Chopin immediately uses the D♭ in the right hand as a starting position for a new harmony. By starting the passagework immediately on the same D♭ in the next quaver beat, Chopin slightly distorts the basic rhythm of the scherzo, yet this does not seem to be his main concern. This is arguably because he has found a method of moving smoothly and ergonomically across the span of two octaves using his thumb (1) and index finger (2) in the right hand as an effective joint, guiding the hand to a new position. This

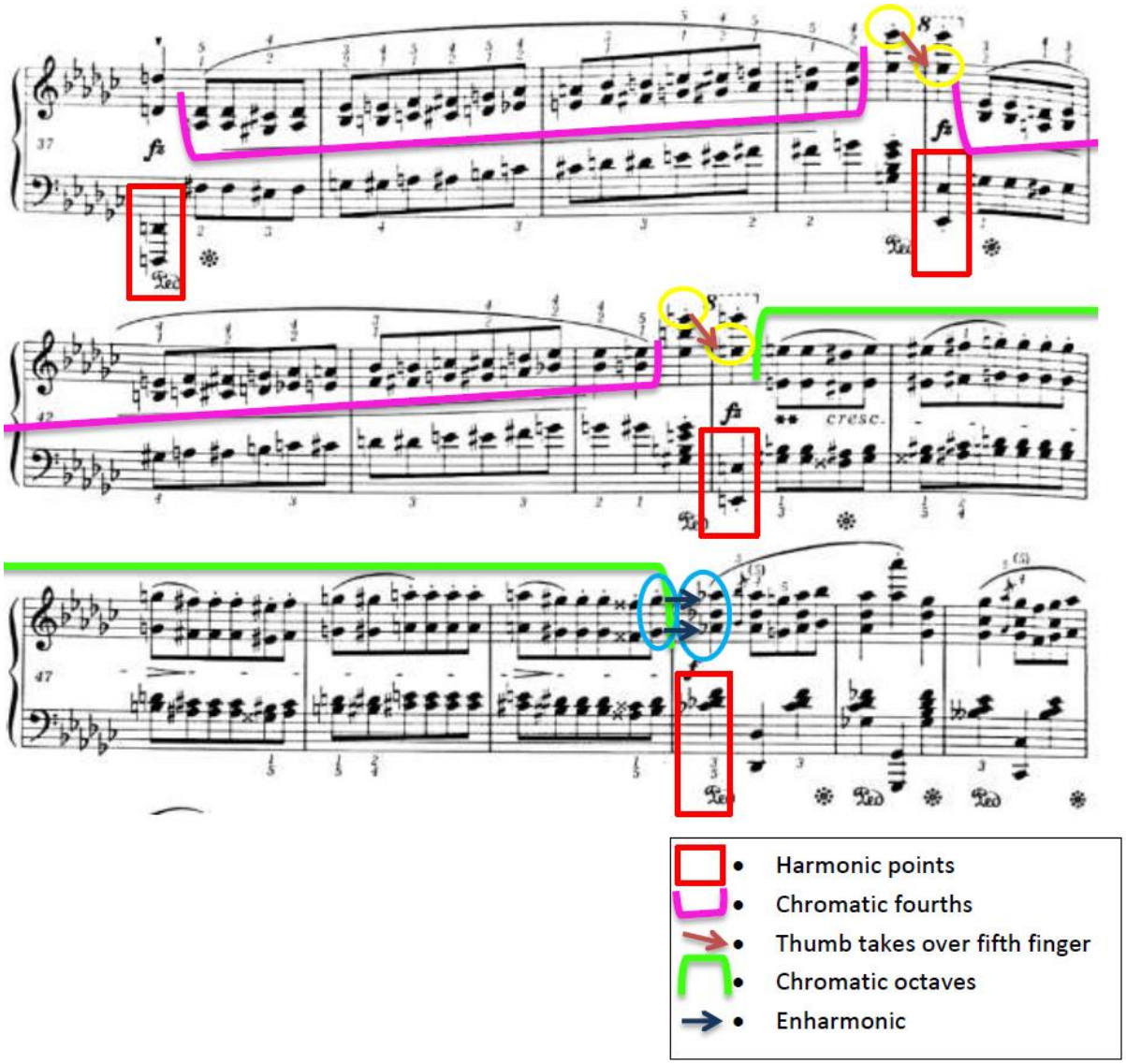
[409] See video example 6.16b and 6.16c.
[410] See video example 6.16d.
[411] Chopin, *Sonaty,* 21.

method is used as a way of extending the harmonic colour of G♭ major to serve as a contrast to the opening darker tone of E♭ minor. Similarly, in the bass clef, the movement is facilitated by shifting the second finger sideways to thumb. Again, this shift forces the left hand to group the chords in pairs, distorting the overall 3/4 rhythm of the scherzo. This pianistic innovation of moving up the keyboard despite distorting the basic rhythm is arguably motivated by Chopin's approach to improvisation which often prioritises the feel of his hands over other rhythmic aspects.

Other forms of Haptic Improvisation: Parallel Fourth Handshape

The use of parallel fourths up the chromatic scale played by the right hand is often seen in his other works, including the E minor piano concerto and the Polonaise Op. 53, as a device for bravura.[412] Apart from that, in example 6.16 below, the parallel fourth handshape is also used as a linking device for Chopin to connect his modulating passages chromatically from D-E♭-E major.

[412] For the use of parallel fourths in Op. 11, see Chopin, *Concerto in E minor Op. 11*, page 43 bars 408-409 and page 46 bars 432-433. Also, opening bars of Op. 53 in Fryderyk Chopin, *Polonaises Op. 26-61* edited by Jan Ekier (Krakow: The Foundation for the national edition of the Works of Fryderyk Chopin, 2011), 54.




Example 6.18 Chopin Op. 35/II Bars 37-52[413]

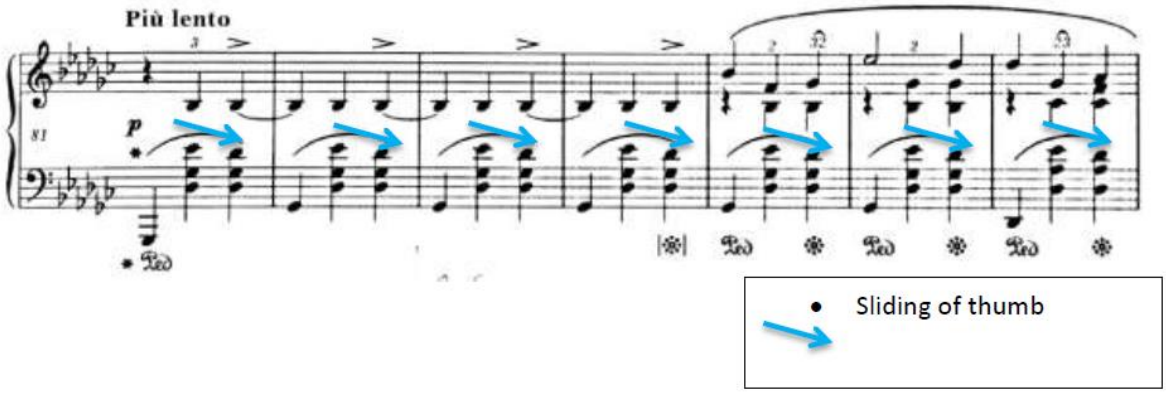
The large leaps in the right hand passing through three octaves of E♭ in bars 37-38 and E♮ in bars 49-50, are connected as the thumb first takes over the fourth followed by the fifth finger with the wrist moving outwards. This allows the pianist to concentrate on the left-hand leap instead. Upon arriving at E major in bar 45, which is a distant key from its original E♭ minor, Chopin moves his right hand in parallel chromatic octaves and left hand in chromatic thirds, as though improvising on the keyboard to get him to his goal of the dominant seventh of G♭ major in bar 50. This arrival of the dominant seventh is modulated enharmonically at the end of bar 49 where the right hand on G# becomes respelled as A♭ in the next bar. With both hands arriving at their desired positions both physically and harmonically, Chopin brings in a new mazurka to the scherzo in bar 50, this time stated

[413] Chopin, *Sonaty,* 22.

in a major key. As a consequence of Chopin's haptics, chromatic thirds and fourths have been used extensively throughout these modulatory passages as a manner of filling up a musical space in order to get to the next harmonic goal.

Sliding Technique

Despite not having an extremely huge hand like that of Ravel or Rachmaninov, Chopin was known to have a very long thumb. The thumb was subsequently employed by Chopin for various functions and in the case of the below example, to perform a sliding technique.




Example 6.19 Chopin Op. 35/II Bars 81-87[414]

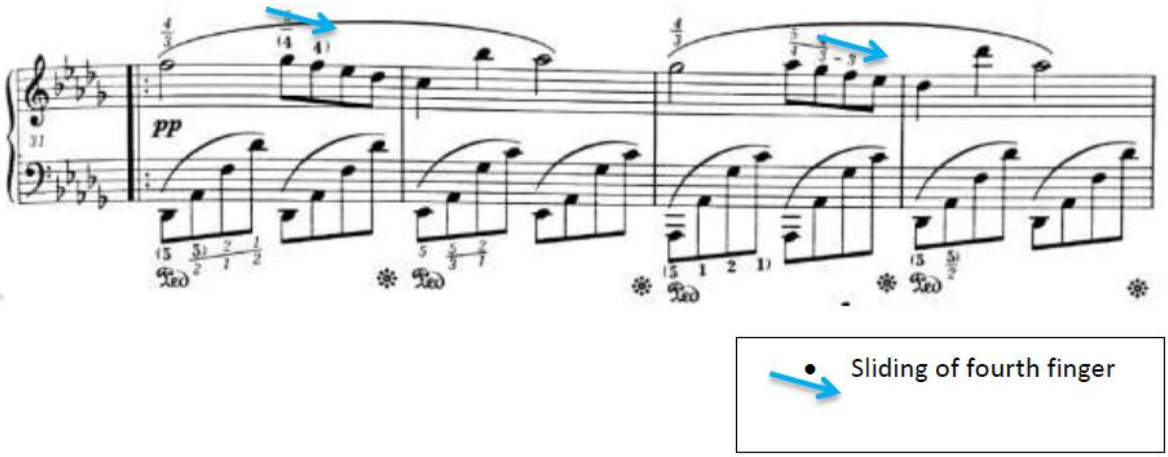
In the trio section of this second movement, Chopin's arrangement of notes, with the bass clef having a note higher than the treble, is seemingly unusual. With an understanding of the physical shape of his hand, we can see that Chopin cleverly came up with such an arrangement so that the thumb could slide from one black key to the other, thus producing a natural diminuendo that is required from the resolution from E♭ to D♭. It further encourages a slight emphasis on the second beat which creates a different timing of notes that an alternative fingering would not be able to produce. This technique becomes common later in the nineteenth century among French pianist-composers such as Ravel.[415] Nonetheless, this could arguably be a voicing decision as well. By giving the right hand with one only B♭ to play, the last beat accentuation of the note could come through more easily as a separate line.

Similarly, in the trio section of the third movement, the sliding finger technique is also used perhaps as Chopin's solution to create a smoother legato line by ensuring the hand is kept at the

[414] Chopin, *Sonaty,* 23.

[415] See the opening passages of Ravel's Le Gibet in Gaspard for instance where the repeated B♭ act as bell-notes.

same position. If a more conventional fingering of 4-3-2-1 is used in bar 31, this would force the right hand to turn to the index finger at C and thus would likely interrupt Chopin's haptic sensation at the keyboard.[416]




Example 6.20 Chopin Op. 35/III Bars 31-35[417]

Other than maintaining a better sense of legato, the sliding fingering encourages a slight lingering on both G♭ in bars 31 and 33 as demonstrated in my recording.[418] This might be a way Chopin builds in his rubato which is created by the choice of fingering rather than performance directions. In response to the relationship between the contrasting trio sections of the second and third movements to their outer parts, Jim Samson writes that:

> Like the Scherzo, the Funeral March encloses a nocturne in the relative major, so sharply contrasting in character […]. Although the tempo remains unchanged, the effect of this middle section is not one of natural growth from, or even complementarity to, the funeral march. The distance is as great in a way as that between the scherzo and its trio and the remoteness is underlined by Chopin's denial of any but the most fragile tonal or thematic bridge between the two sections. […] Schumann was certainly right in his observation that it is no conventional sonata.[419]

[416] See video example 6.20a and 6.20b.

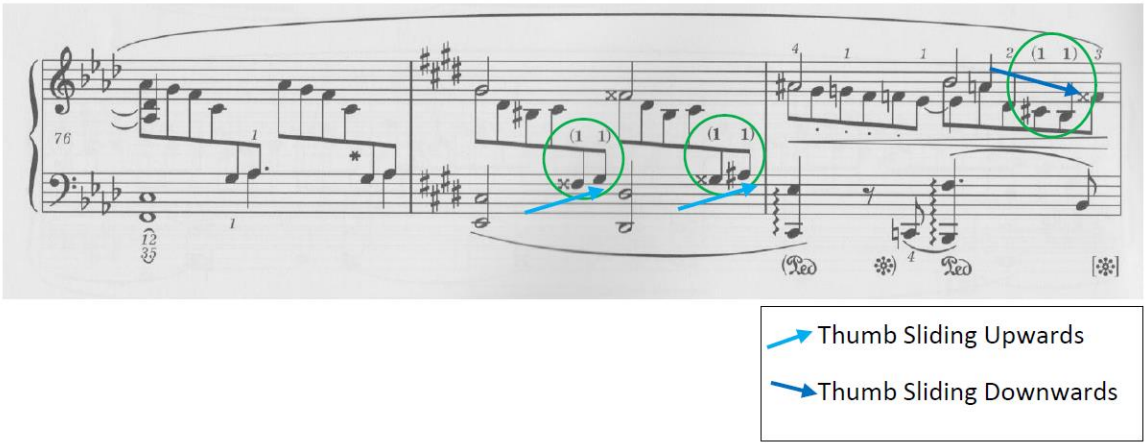
[417] Chopin, *Sonaty,* 31. Regarding Chopin's original fingering and why they are in brackets, this can be found in the source commentary of the Ekier edition. Ekier explained that 'minor authentic alternatives: single notes, ornaments, slurs, accents, pedal indication that can be regarded as variants are enclosed in round brackets (), whilst editorial additions are written in square []'. Further on, Ekier goes on to explain that 'Chopin's original fingering is indicated in large bold-type numerals (**1 2 3 4 5**), in contrast to the editor's fingering which is written in smaller italic numerals, (*1 2 3 4 5).*' Ekier further added that '*original fingering enclosed in parentheses indicates fingerings not present in the primary sources, but added by Chopin to his pupils' copies*'. (emphasis added). See Fryderyk Chopin, *Sonaty Op. 35, Op. 58 Performance Commentary Source Commentary (abridged)* edited by Jan Ekier ((Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2010), 2.

[418] See video example 6.20c and 6.20d.

[419] Samson, *Music of Chopin*, 131.

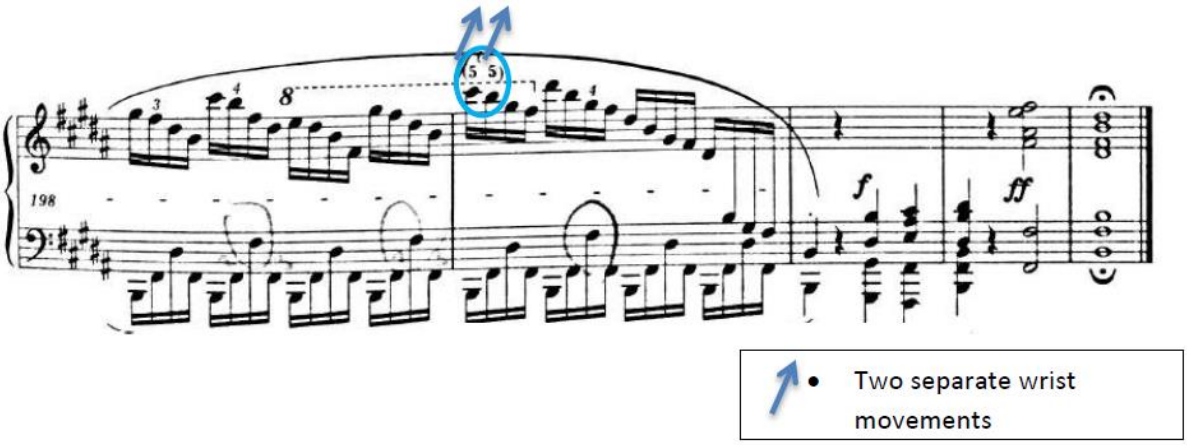
Samson's critique of both trio sections comes purely from a perspective of compositional construction. In the discussion of the third movement's trio, Jeffrey Kallberg offered another explanation from a genre perspective. By considering the trio as a 'prayer' instead of a nocturne, Kallberg provides a different kind of bridge between Chopin's march and trio. Not that of thematic links, but one that involves Chopin's 'alter[ation] to the sense of genre'.[420] In general, trios of funeral marches tended to be athematic because of their need to stay in line with their official functions. However, Kallberg pointed out that Chopin's trio is one that 'offers a real melody'.[421] Thus, 'the force of Chopin's gesture in the trio is to wrench the expressive terrain of the genre from the public domain to the private. It is a sort of *personal* meditation that the trio from Chopin's march seems to evoke'.[422] Unlike Samson's critique which is based on thematic links, by viewing the trio as a prayer, it can then be seen as a 'natural outgrowth' from the March.

Chopin uses this sliding technique in various movements of Op. 58.




Example 6.21 Chopin Op. 58/III Bars 76-81[423]

[420] Jeffrey Kallberg, 'Chopin's March, Chopin's Death' *19th Century Music* Vol 25 No. 1 (2001): 16. Kallberg uses the word 'preghiera' in his description.
[421] Ibid, 16.
[422] Ibid. Italics author's emphasis.
[423] Chopin, *Sonaty,* 64.




Example 6.22 Chopin Op. 58/I Bars 198-202[424]

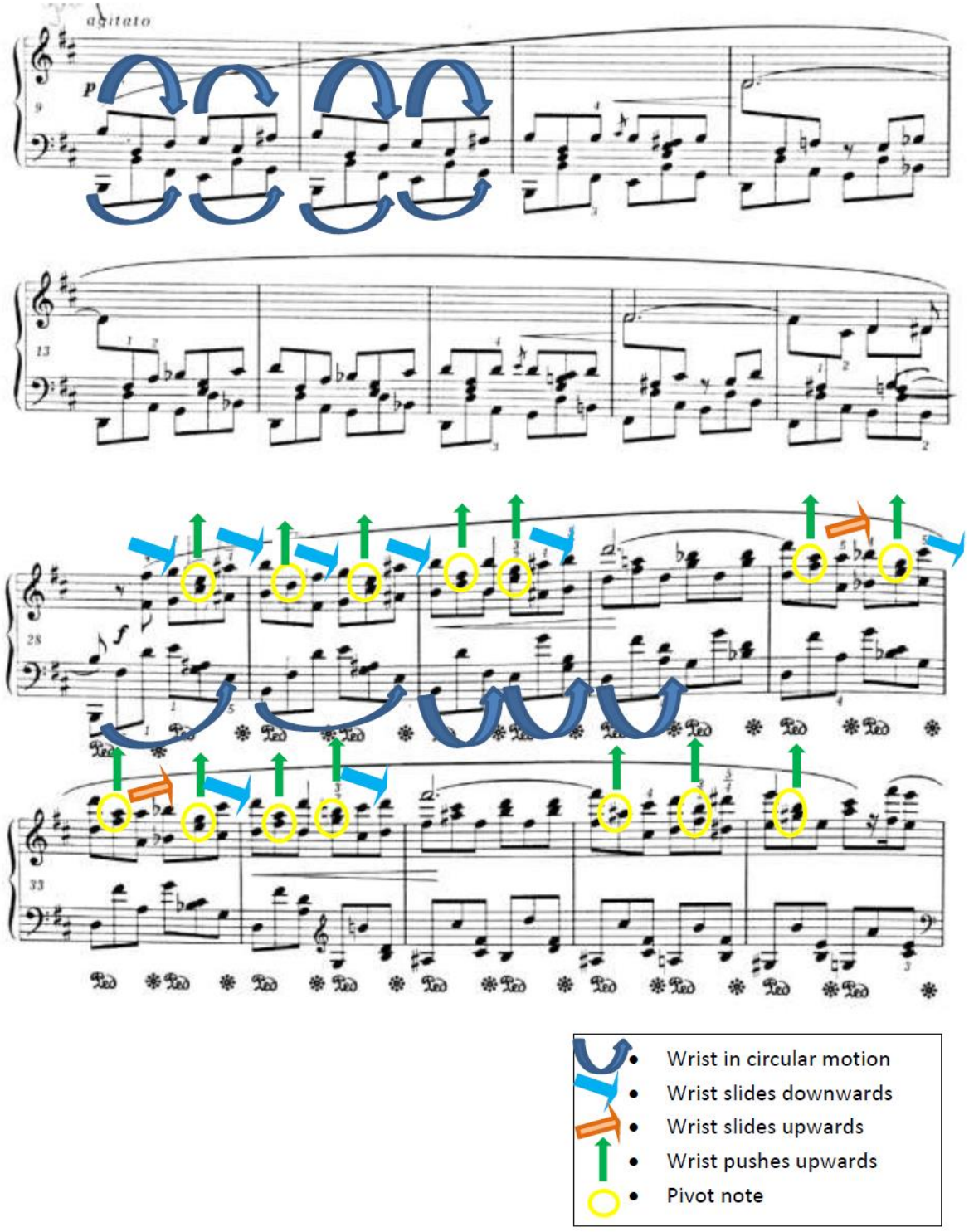
In the same way as in the trio of the Funeral March, the sliding of the thumb in example 6.21 is employed so as to achieve a legato line. It can be seen as an unusual choice in this instance since the thumb has to slide upwards, in which case two separate hand movements result. Chopin's choice of the thumb fingering here was intended perhaps to create an even tone between the quavers, which is harder to achieve if the alternative fingering between the thumb and the index finger has been used. Furthermore, a different fingering would result in a different hand shape and a different haptic sensation for the passage as a whole.

Towards the end of the first movement of Op. 58, example 6.22, Chopin wrote in the fingering of 5-5, indicating that both notes should be played by the fifth finger. As demonstrated in the video clip recorded at slow motion, the downward sliding of the fifth finger not only allows the pianist to play the figuration without changing handshape, it also provides a rhythmic placement to the top climatic note which might otherwise be rushed if the alternative fingering 5-4 was used.[425] For pianistic reasons, Chopin omits the fourth finger in this instance because he is aware that the fourth finger is the weakest, as he explained in his *PM,* and therefore would not be able to project the required sound for a climactic moment such as this. Although the sliding finger technique does not in any case relate to the construction of the sonatas, it demonstrates instances of how Chopin's experimentations and haptic impulses on the keyboard led him to various figurations at a micro level.

The finale of Op. 58 demonstrates a combination of haptic procedures that we have discussed earlier. Taking on the structure of a rondo A-B-$A^1$-$B^1$-A-Coda, the rondo theme uses a characteristic

[424] Chopin, *Sonaty,* 53.
[425] Four video clips have been recorded from different angles and at different speed. See video examples 6.22a, 6.22b, 6.22c and 6.22d.

haptic procedure of Chopin's with the wrists in both hands in constant circular motion that we have seen in an earlier discussion of his compositions in other genres.

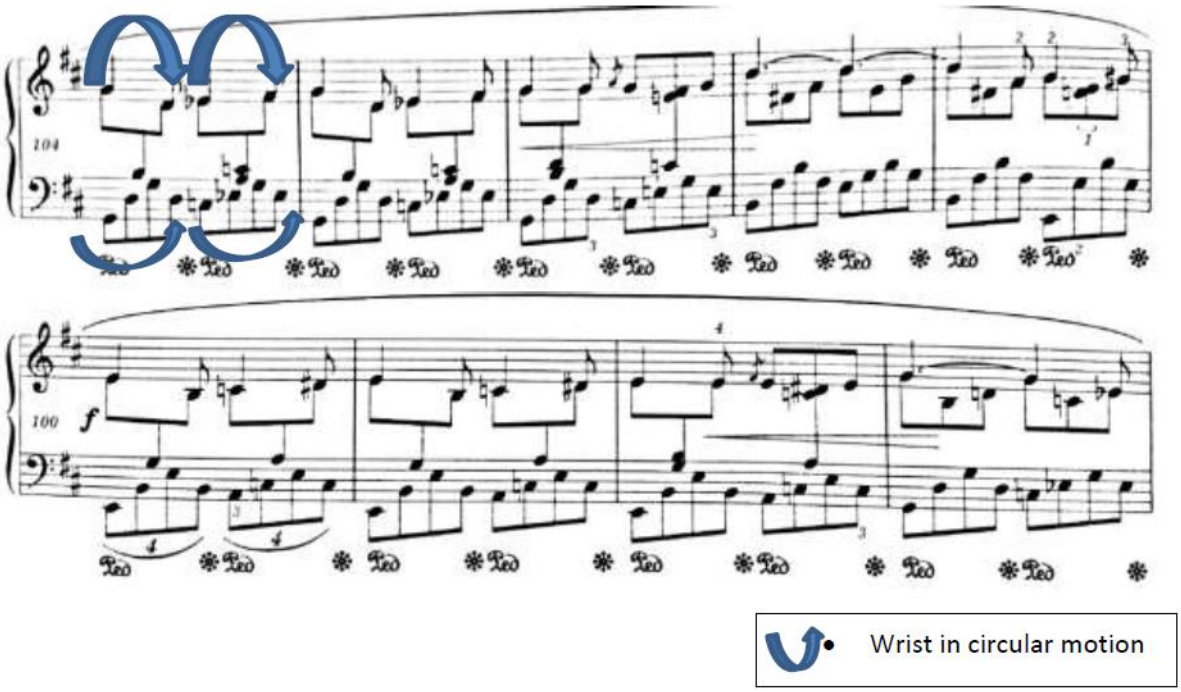



Example 6.23 Chopin Op. 58/IV Bars 9-17, Bars 28-37[426]

As he develops this rondo theme into octaves in the next section, in a similar manner to the development section of the first movement of Op. 35, thirds, fourths or single notes are added in

[426] Chopin, *Sonaty,* 67-68.

between these octaves. These additional chords act as pivots for the hands to move smoothly from one octave to another. In the absence of these pivot notes or chords, for instance bar 28 F#-G, the right hand wrist slides down from a black key to a white or upwards, vice versa, in the case of A-B♭ in bar 34. Four video clips have been recorded at different speeds and angles to demonstrate such physical movements.[427]



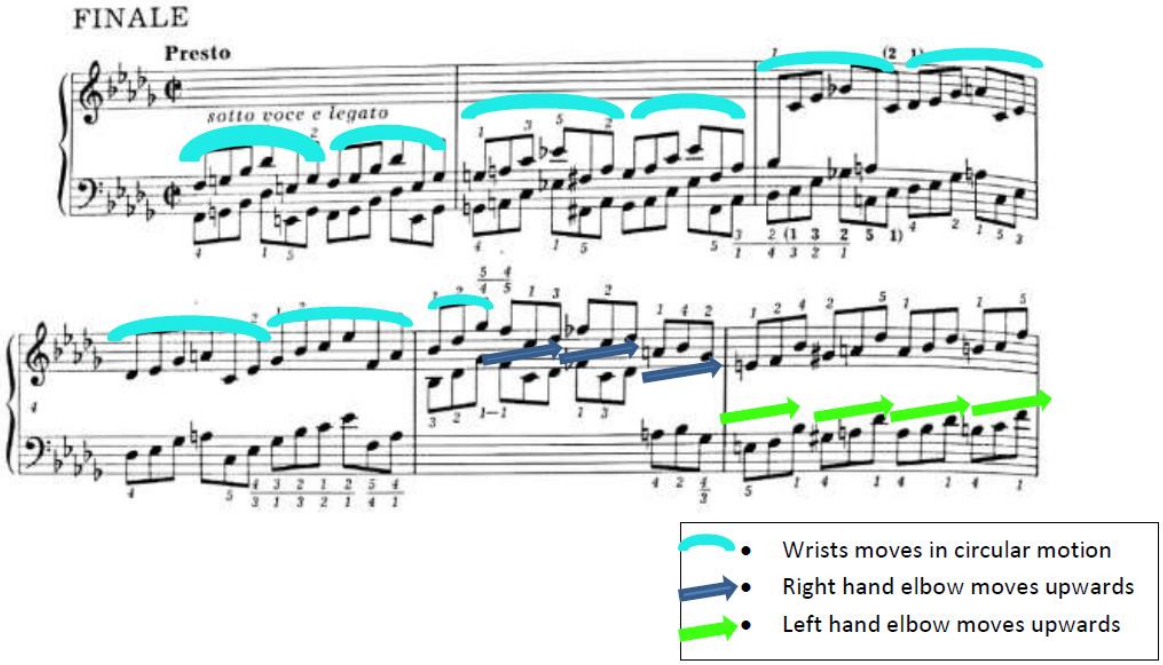

Example 6.24 Chopin Op. 58/IV Bars 104-113[428]

In example 5.18, as Chopin proceeds to a restatement of the rondo theme in E minor, he creates a polyrhythm as he juxtaposes the rondo triplet theme against groups of four quavers in the left hand. This haptic procedure so omnipresent in his compositions could possibly be due to his liking for such a 'feel' on the keyboard.

[427] See video examples 6.23a, 6.23b, 6.23c and 6.23d.
[428] Chopin, *Sonaty,* 68.

Haptic Exploration

The unaccompanied octaves that dominate the entire last movement of Op. 35 have often been analysed in harmonic terms, ignoring the distinctive haptic aspects of the keyboard texture. Leichtentritt, for instance, contended that 'the beginning [lies] outside of the main key, with one-measure sequences in F minor, G minor and B♭ minor'.[429] Réti viewed the rising third of B♭ to D♭ in bar 1 as a retrograde of the first two notes of bar 9 of the opening movement and thus acknowledged a thematic affinity, while Rosen argued that 'the first four bars are clearly an introduction on the dominant'.[430]




Example 6.25 Chopin Op. 35/IV Bars 1-6[431]

Other analysts have used various harmonic methods to analyse this piece; however, there are also narrative considerations for this piece. The Russian pianist Anton Rubinstein associated this finale with 'night winds sweeping across churchyard graves'.[432] In a conversation with me, Yulianna Avdeeva, the Chopin 2010 competition gold medallist and winner of the best performance of a sonata, further described the 'finale as a form of improvisation'.[433] In her opinion, the sonata finishes when the

[429] Leichtentritt, *Analyse der Chopin'schen Klavierwerke*, 232.
[430] On Réti, see earlier discussion: chapter 2. Rosen, *Romantic Generation*, 294.
[431] Chopin, *Sonaty,* 34.
[432] Alan Walker, *Fryderyk Chopin: A Life and Times* (London: Faber and Faber, 2018), 416.
[433] In a conversation with Yulianna Avdeeva. See Practical Documentation 3 for the full record. Yulianna Avdeeva, interviewed by Xiaoyun Lim at London, United Kingdom, 30th March 2017.

Funeral March comes to a close; the finale is perhaps 'Chopin's short reaction to death' and 'his last observations as he watches from a distance,' acting as an epilogue to the other movements. Avdeeva's description of the finale, despite being a personal interpretation, mirrors its harmonic construction: a vague tonal centre that moves somewhat between B♭ minor and D♭ major, surrounded by chromatic harmonies. This suggests a distance from reality, and the rapid changes of harmony also point towards the movement's improvisatory qualities. It is this vague tonal centre that gave Ekier some editorial difficulty, as explained in the source commentary of the edition that bears his name:

> Unique in Chopin's oeuvre and in Romantic music in general, this movement raises several doubts as to the actual pitch of notes. This refers to the last beat in bars 22, 47 and 50, where the harmony leads one to suspect that Chopin overlooked the accidentals. However, it should be stressed that the harmonic aspect in the entire finale is often ambiguous.[434]

In other words, because the harmony is ambiguous, Ekier cannot be certain what harmonic outline Chopin was following, or indeed whether this vagueness was a deliberate aspect of the harmonic structure. In his edition, Ekier gave both possibilities in the bars noted above.[435]

A closer inspection of the continuous triplets suggests that Chopin might have discovered these passages through haptic exploration as he circled his hands around the keyboard. The opening four bars in the video clip exemplify this circular wrist motion, where both hands move together in the same fashion.[436] In bar 3, in order to keep this circular motion, Chopin again places the right-hand thumb on the black key on the B♭ and D♭.[437] In example 6.25, at the start of bar 5, Chopin retains the upward movement of this circular motion in the first group of triplets while departing to subsequent descending triplets. Consequently, this leads to elbow movements that are not in synchronisation with each other in both hands. As demonstrated in the videos, when the triplet starts to descend, the right-hand elbow naturally moves upwards, while the left hand elbow moves downwards.[438] The reverse movement of the hands follows in the next bar when the triplet figuration ascends up the register, this time with the left hand elbow moving upwards.[439] This observation is further supported by anatomical considerations.

[434] Chopin, *Sonaty Source Commentary*, 8.
[435] Unlike other editions, the Paderewski edition only provides one option in the score.
[436] See video examples 6.25a, 6.25b and 6.25c.
[437] Fingerings in bold are Chopin's.
[438] See video example 6.25d.
[439] See video example 6.25e. A full haptic analysis of this movement can be found in Practical Documentation 4.

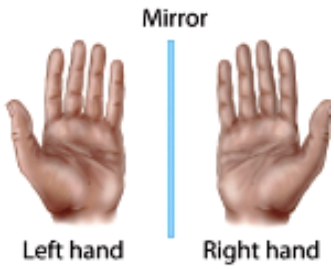



Figure A

Figure B

Figure 6.26: Anatomy of hands [440]

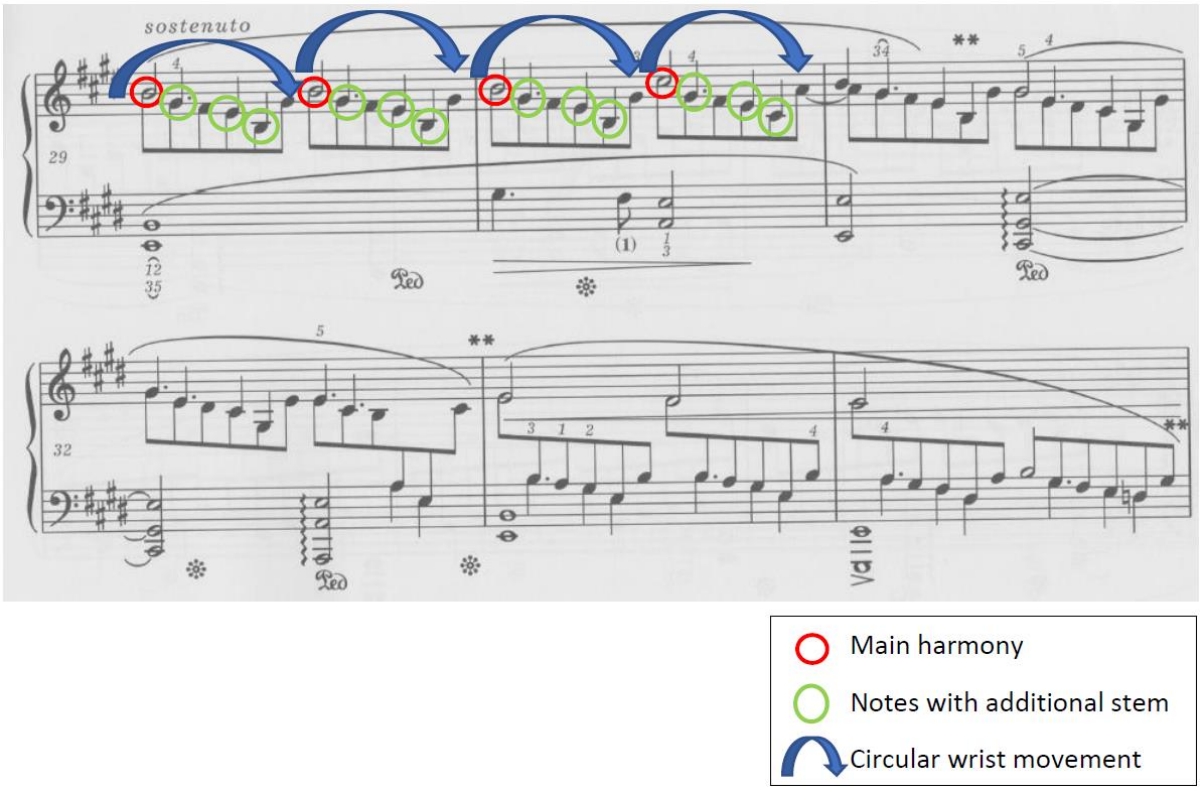
Anatomically, our hands are a mirror image of each other (see figure 6.26a). When we stack one hand above the other, the thumbs are at opposite ends (see figure 6.26b). The implication of this is that when we play a unison passage on the piano, for instance, an ascending scale, the right and left elbows move differently in relation to the torso. In contrast, when we play a contrary motion scale, both elbows move outwards in relation to the torso as the scale ascends, and tilt slightly upwards as they return to the starting note.

With reference to the finale of Chopin's Op. 35, as this is composed in a unison texture, in most places the elbows are moving in opposite directions. This physical observation sheds light on Chopin's own commentary of this finale. In his letter to Julian Fontana, Chopin wrote that 'the left hand and the right hand in unison chat [converse] after the March'.[441] This 'chat' that Chopin refers to in the unison passages of the finale, mirrors the subtle variation in voicing found between the hands as a result of the elbow movements in different directions. In my 2019 recording of Op. 35, I made the performance decision to emphasise the voicing created by these elbow movements in these passages, whereas previously I had tried to counteract these movements by removing differentiations of volume between the hands. For instance, in the ascending scale passage in bar 23, as my left elbow tilts upwards during the ascent, I allow my left hand to take the leading role over the right hand. Vice versa, in the next bar, as the descending passage creates an upward movement in my right elbow, I allow my right hand to take the leading role in this passage over the left hand.[442] This same sort of treatment is

[440] Illustration adapted from a chemistry study. LibreTexts, "Chirality in Organic Chemistry" https://batch.libretexts.org/print/A4/url=https://chem.libretexts.org/Bookshelves/General_Chemistry/Map%3A_ChemistryThe_Central_Science_(Brown_et_al.)/25%3A_Chemistry_of_Life%3A_Organic_and_Biological_Chemistry/25.07%3A_Chirality_in_Organic_Chemistry.pdf (accessed 30th April 2020).
[441] Chopin, *Selected Correspondence*, 212.
[442] See Folder 'Op 35 Submission': Op 35 IV 0:31-0:33

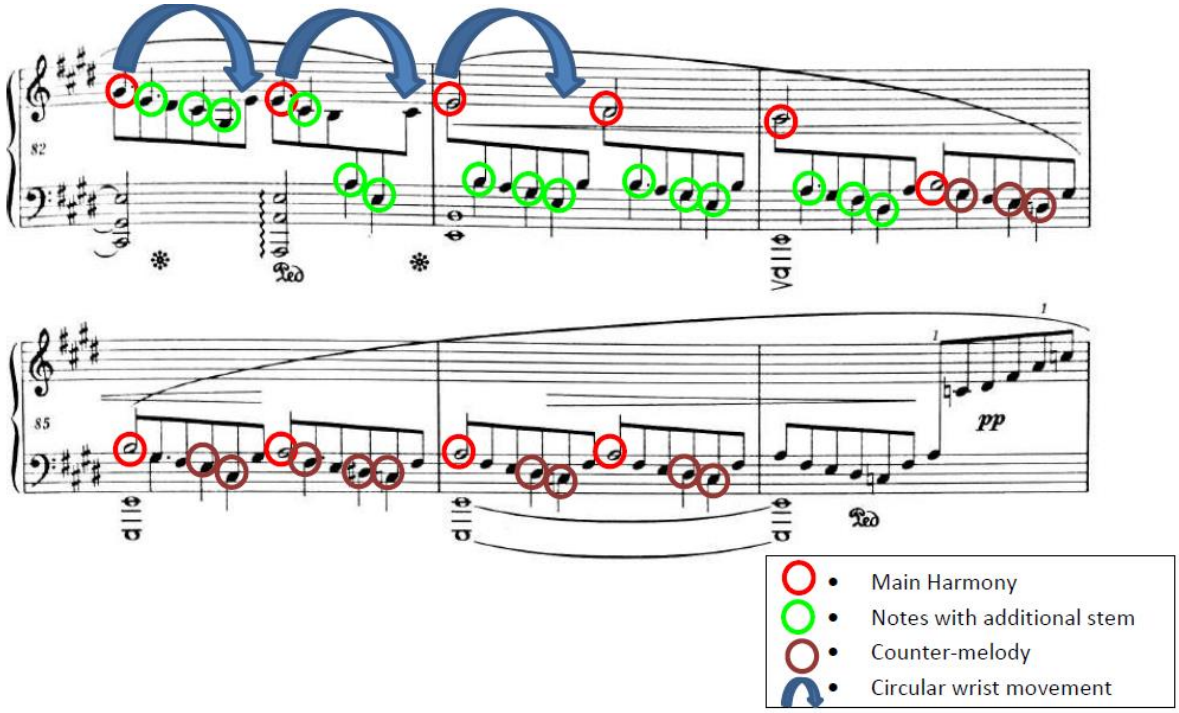
applicable, for instance, to bars 15-21, 27-28 and 63-64.[443] Such variation in voicing between the hands in these unison passages allows me to recreate the 'chat' that Chopin speaks of and it is also a more effective and ergonomic manner of execution since it capitalises on the natural capacity of the human hand.

The trio section of the third movement of Op. 58 presents another instance of haptic exploration. In terms of harmony, this trio is less radical than the finale of Op. 35. Nonetheless, where quality of sound and texture are concerned, Chopin's haptic process in the later work, Op. 58, allowed him to arrive at a more subtle way of presenting calmer tone colours and effects.




Example 6.27 Chopin Op. 58/III Bars 29-34[444]

[443] Ibid, 0:20-0:28, 0:36-0:38, 1:26-1:29.
[444] Chopin, *Sonaty,* 61.



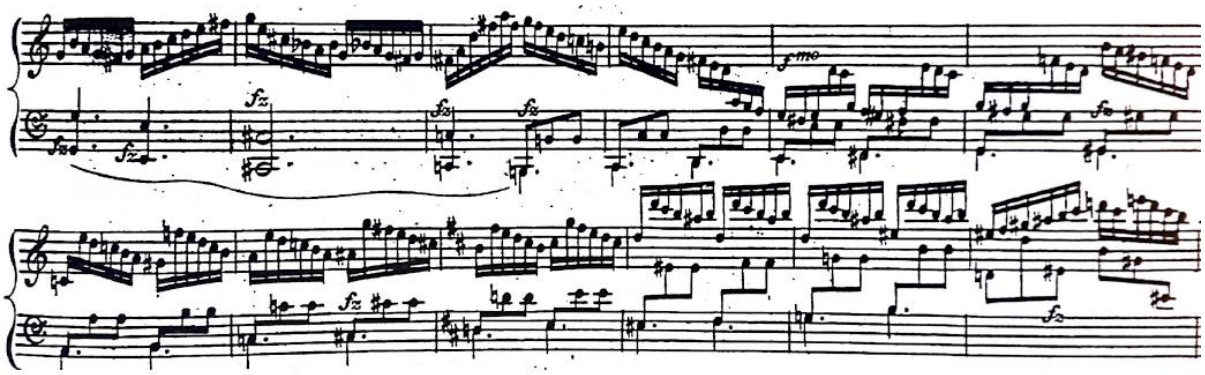

Example 6.28 Chopin Op. 58/III Bars 82-87[445]

Throughout the entire trio, Chopin chooses to differentiate some of the notes by increasing their note value from quaver to crotchet, or to dotted crotchet. As shown in examples 6.27 and 6.28, this approach does not indicate that the lengthened notes should be voiced as a separate melody, but rather that a specific legato effect is required.[446] A possible reason might be as an indication for the pianist to hold these notes down with their fingers so as to recreate a specific sonic effect that will not be achieved the use of pedal alone. In so doing, it leads the hand into natural movements that suggest for the quaver notes to be timed differently from each other, especially the notes played with the thumb, which create a rubato effect that results from the shape of the hand. This approach to legato also helps the pianist to achieve the sustained sound indicated by the 'sostenuto' marking for this section. Perhaps, as Chopin had gained greater maturity by the time he was working on Op. 58, this arrival at the trio section exemplifies a better-integrated manner of haptic exploration as all his ideas fit well into standard harmonic progressions and the ternary structure.

[445] Ibid, 65.

[446] Two video clips have been recorded. The first video, example 6.27a documents a hypothetical fingering where the notes are not held. The next video, example 6.27b documents a recording when Chopin's fingerings are followed. In the first video, because the notes are held by way of the pedal instead of the hand, the legato effect that is produced by the quavers are much flatter and evenly spaced than the next video clip. In video example 6.27b, because the fingers are responsible for connecting the notes, the quavers achieve a more melodic and sustained legato line.

Chopin is not the only composer to have notated overlapping note values, with others such as Hummel and Clementi also having composed passages with overholding notes.

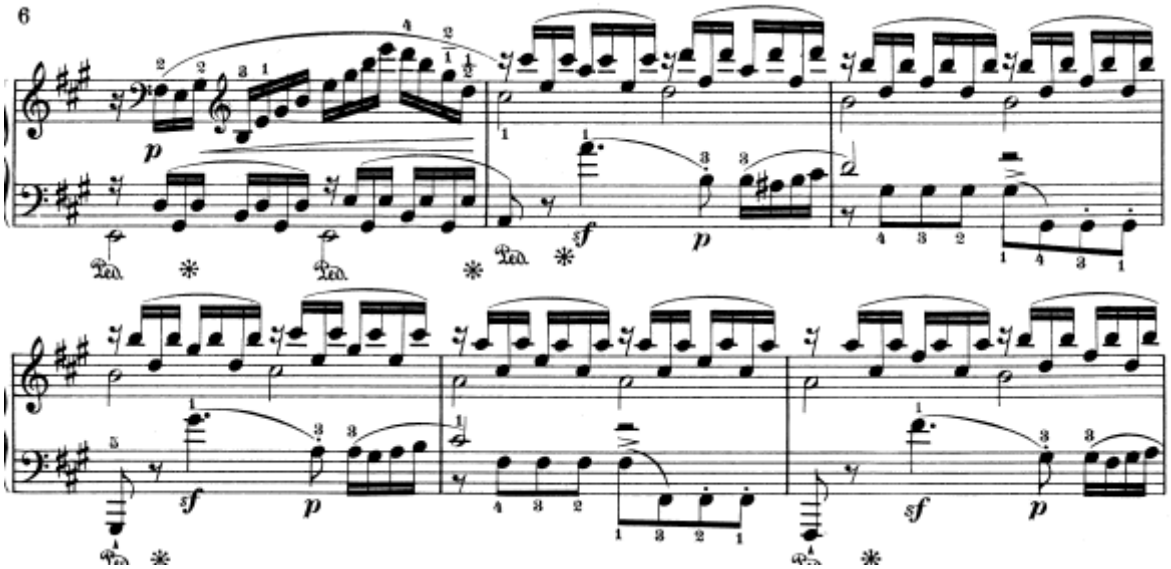


Example 6.29: Clementi Piano Sonata Op. 40 No. 2 bars 121-132[447]

Composed in 1802, Clementi's Piano Sonata Op. 40 No. 2 was completed just as the pedal mechanism was being introduced. Trained initially as a harpsichordist, Clementi was slow to this change and 'cautious' of the pedal.[448] His Op. 40 piano sonatas, however, were works that started to incorporate pedal markings. In example 6.29, between bars 123 and 137, Clementi has specified to overhold the bass notes instead of using the pedal. In the following two bars, the music prepares to return to the initial tempo marking of *Largo, mesto e patetico* as the Allegro section comes to an end. This overholding of notes is not merely an indication of legato but is also intended to sustain the harmonic notes in order to add additional volume to the passage overall. While the pedal could potentially be used here, the speed required for this passage would lead to a blurring of the sixteenth-note figures. In comparison to this, Chopin's overholding of notes in example 6.27 in the right hand at the passage marked *sostenuto* does not produce an additional harmonic layering.

[447] Muzio Clementi, *Sammlung berühmter Sonaten von Muzio Clementi* edited by Adolf Ruthardt (Leipzig: C.F. Peters, [1909]), 55.

[448] Clementi's persistent use of the harpsichord when other keyboard players were already performing publicly on the piano suggests that he was not always enthusiastic in keeping up with the latest performance trends; and the nature of his early pedal markings similarly points to a cautious approach. David Rowland, *A History of Pianforte Pedalling* (Cambridge: Cambridge University Press, 1993), 39.



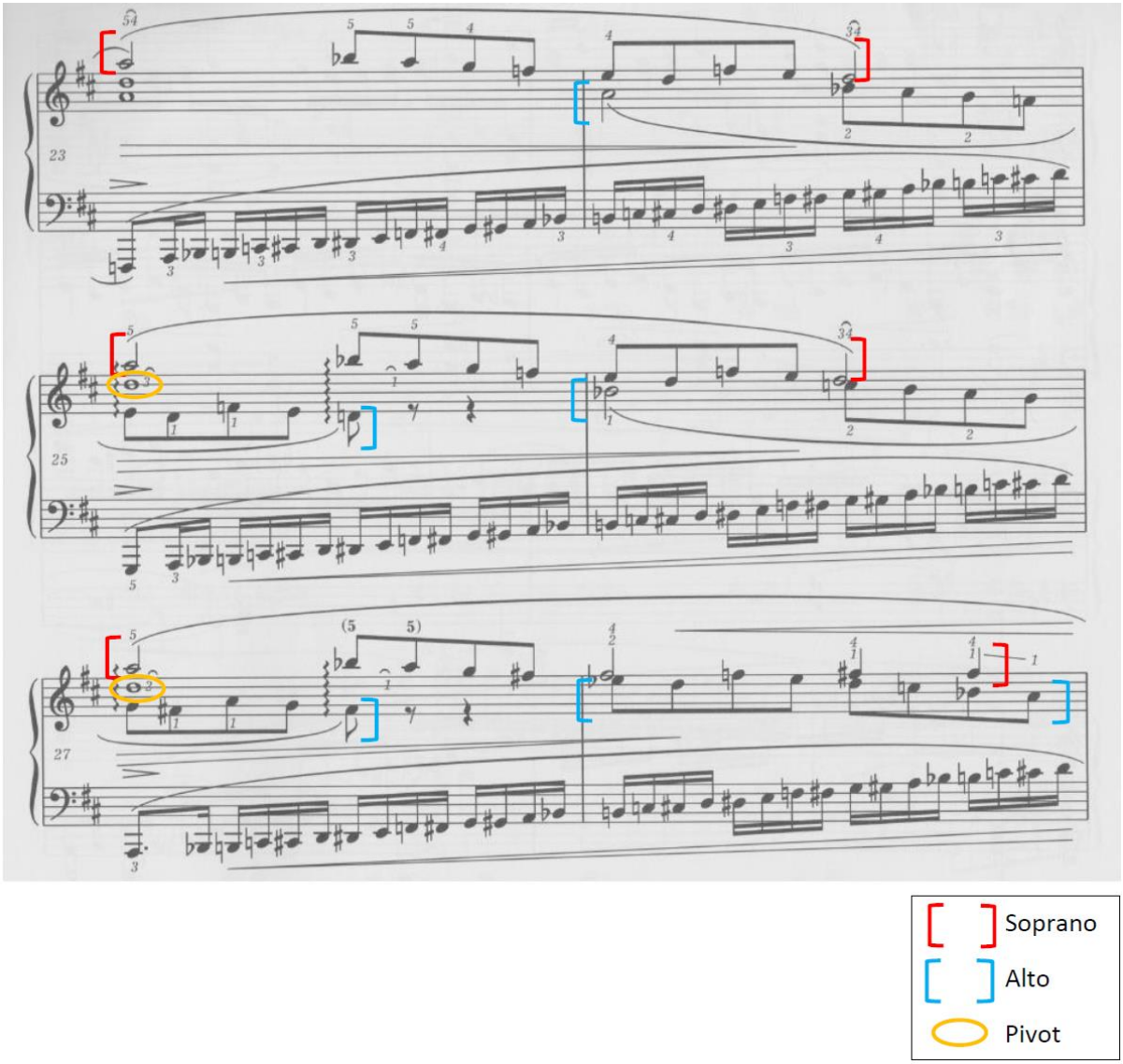
Example 6.30 Hummel Sonata Op. 81 Bars 27-32[449]

Composed in 1819, Hummel's Sonata in F# minor was among the works that Chopin often used when teaching his students.[450] With a tempo marking of *Allegro,* in example 6.30, from bar 28 onwards, Hummel indicates that the right hand thumb should overhold the harmonic notes. When played simultaneously with the sixteenth-note pattern, the right hand thumb creates an extra harmonic layering to the accompaniment figures played by the longer fingers. Since the melody is played in the lower register by the left hand, such a manner of overholding the harmonic notes allows the pianist to play the passage with a minimal use of the pedal and hence maintains clarity at a fast speed.

Haptic Counterpoint

Unlike Op. 35, Op. 58 provides a few instances of haptic counterpoint: a haptic procedure where the ergonomics of the hands allows an extra voice to be fitted in.

[449] Johan Nepomuk Hummel, *Sonaten und Klavier-Stücke von J.N. Hummel* Volume 2 edited by Charles-Wilfrid Bériot (Vienna: Universal Edition, 1902), 6.
[450] Chopin taught this work to Camille O'Meara. Mark Kroll, *Johann Nepomuk Hummel: A Musician's Life and Work* (Lanham: Scarecrow Press, 2007), 311.

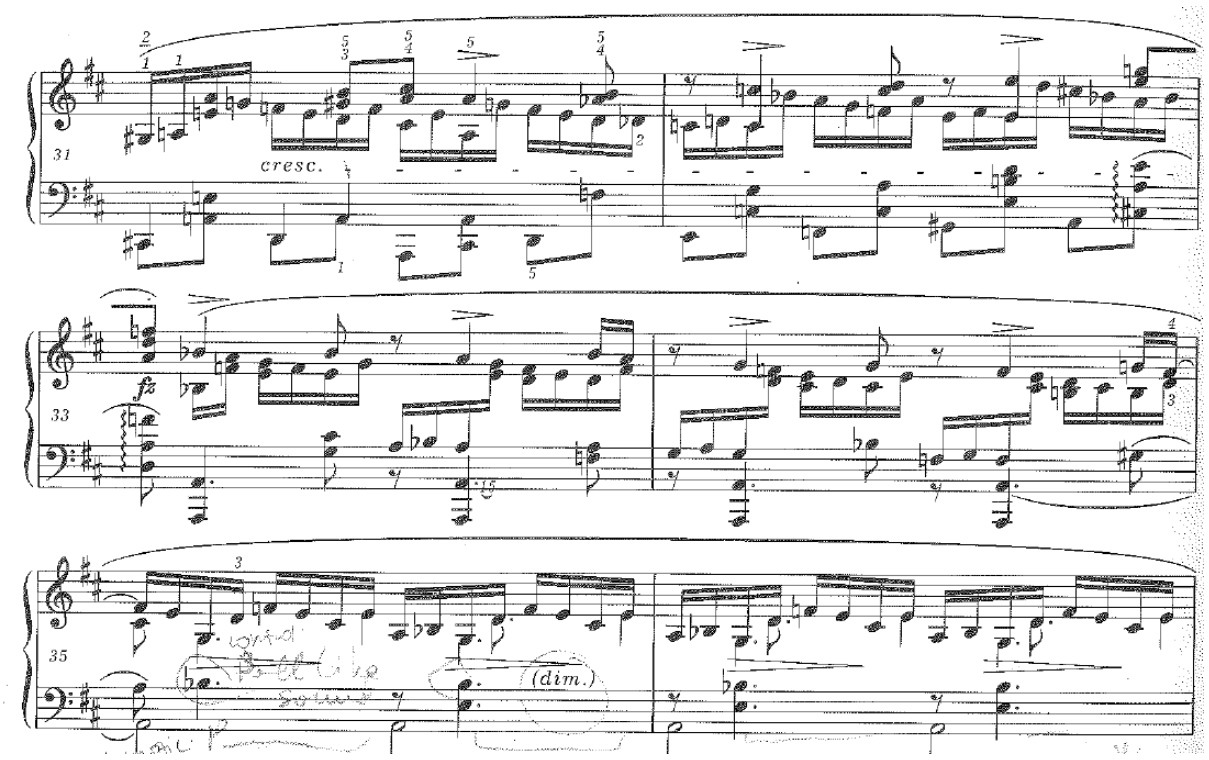



Example 6.31 Chopin Op. 58/I Bars 23-28[451]

In the exposition of the first movement, Chopin's treatment of thematic materials in this voice exchange in the right-hand is dependent on three elements: sideways wrist movement, long thumb and pedal. The texture of this passage draws attention to particular characteristics of Chopin's hand, namely his flexible wrist and long thumb, which can be seen through the inclusion of the alto voice, while the use of pedal has enabled the sustaining of the soprano voice when it re-enters in bars 25 and 27.[452]

[451] Ibid, 39.
[452] See video examples 6.31a and 6.31b.

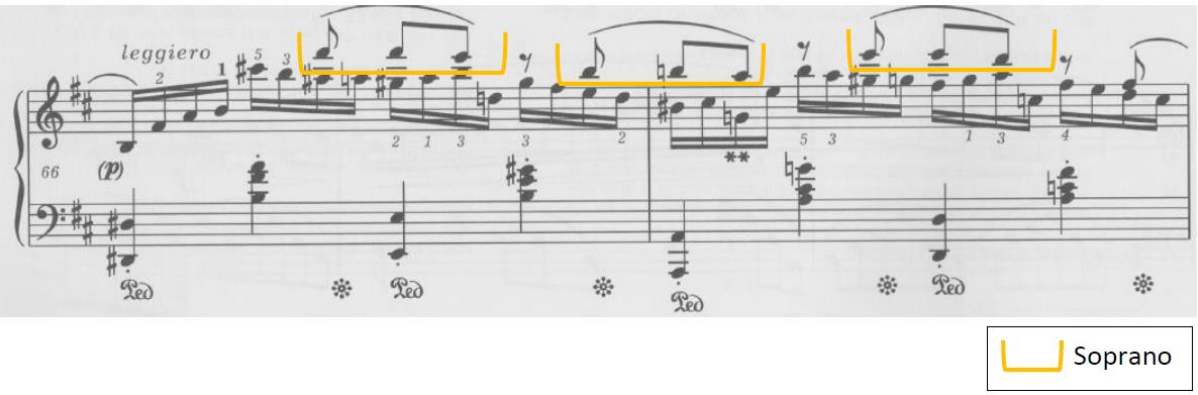
After a short modulatory passage into E♭ major, the next transition passage leading to the second subject is an instance of haptic counterpoint that is virtuosic in nature.




Example 6.32 Chopin Op. 58/I Bars 31-36

In example 6.32, the melodic line is played solely by the fifth finger while the semiquavers in bars 31-34 are played using the remaining fingers.[453] This dividing of the hand allows Chopin to add a melodic line to the virtuosic runs. From bar 35 onwards, the left hand thumb is used to emphasise the harmonic tension between A and B♭. A similar technique can be found just before the closing passages of the exposition.

[453] See video examples 6.32a for the outline of the alto voice, 6.32b for both the alto and soprano voices and 6.32c when the passage is performed as written.




Example 6.33 Chopin Op. 58/I Bars 66-67[454]

The diary of Carl Lachmund recounts an occasion in which this passagework - marked *leggiero* - caught the attention of Liszt as his Dutch pupil, van Zeyl, performed it to him. Liszt stopped his pupil and exclaimed:

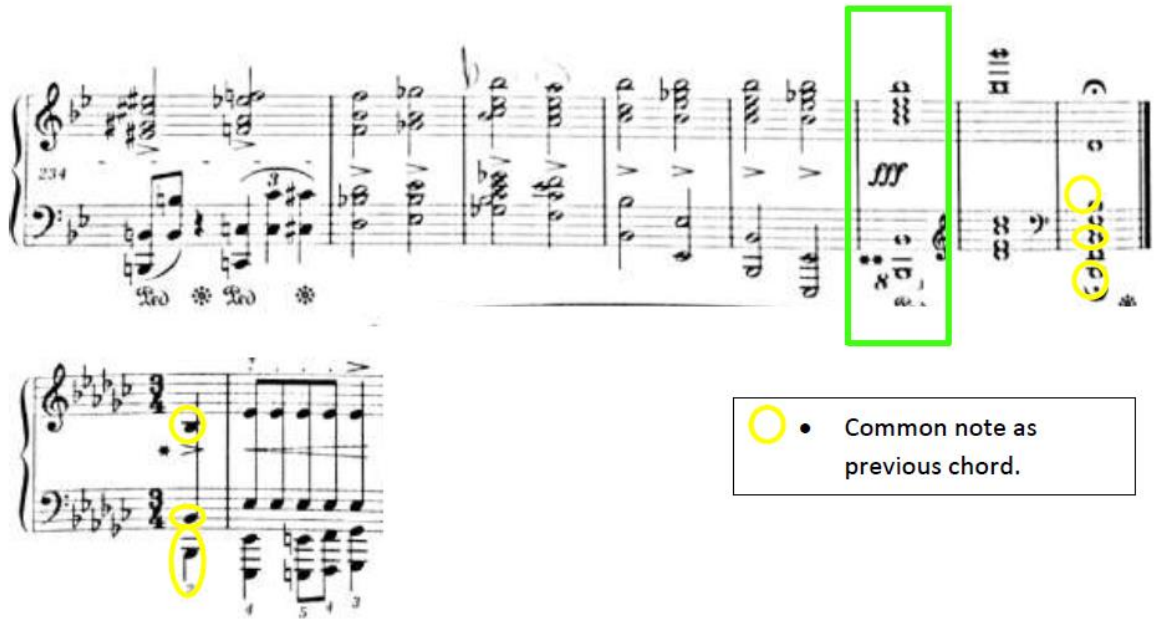
> Only Chopin has anything like this; you will find it with no other composers. And you will find a similar strain in almost every one of his larger pieces […] for instance in the E minor Concerto measure 41.[455]

Liszt's comments point to the uniqueness of Chopin's episodes. To a large extent, the *leggiero* effect comes from Chopin's awareness of the harmonic spacing of notes in the left hand. This is exemplified by the octaves in the lower register, followed by a chord in the higher register over a pedal and the distribution of notes in the right hand motivated by his haptics. Observing Liszt's demonstrations of these episodes, Lachmund described them as 'harmonic charm seem[ingly] intended as a momentary diversion so that the mind may be refreshed for the return of the more serious, thematic or emotional, matter'.[456]

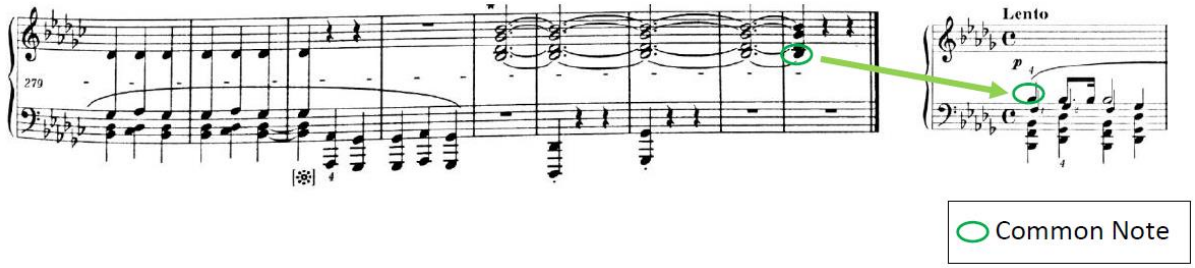
Haptic Impulse at a Macro Level

In the previous section, I undertook an analysis at a micro level to demonstrate the haptic influences at play while Chopin constructed his sonatas. Through his haptic procedures, melodic ideas in various motivic figurations are able to unite together within the harmonic and structural principles of the sonata genre. Such haptic impulses can also be observed at a macro level as Chopin brings his four-movement work together in a physically 'unified' manner.

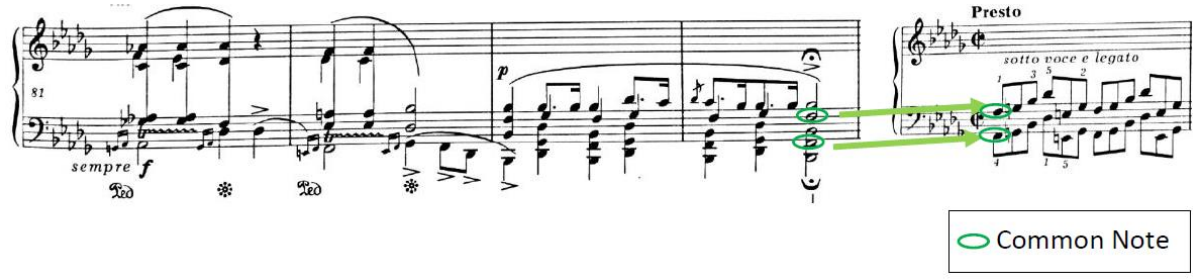
[454] Chopin, *Sonaty,* 42.
[455] Carl Lachmund*, Living with Liszt: From the Diary of Carl Lachumnd An American Pupil of Liszt 1882-1884* edited by Alan Walker (Stuyvesant: Pendragon Press, 1995), 17-18. I am grateful to Kenneth Hamilton for pointing this out to me.
[456] Ibid, 18.




Example 6.34 Chopin Op. 35 End of First Movement to start of Second Movement[457]




Example 6.35 Chopin Op. 35 End of Second Movement to Start of Third Movement [458]



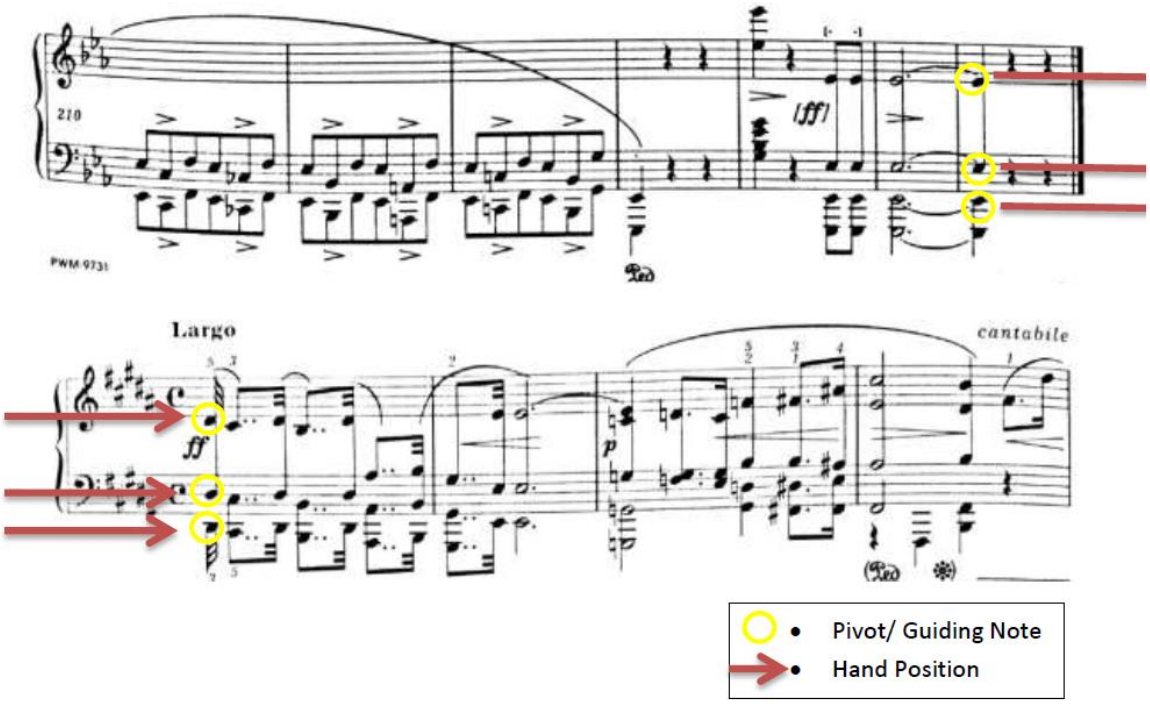

Example 6.36 Chopin Op. 35 End of Third Movement to Start of Fourth Movement[459]

In creating a sense of unity across all four movements in Op. 35, Chopin made use of an intricate device: linking the ending of the previous movement to the beginning of the next movement

[457] Chopin, *Sonaty*, 20-21.
[458] Ibid, 29-30.
[459] Ibid, 33-34.

with chords that are in close proximity. This has inspired several pianists to play each movement attacca.[460] In hindsight, Chopin could have ended his first movement in bar 239 of example 6.34 (see box marked green). Nonetheless, he makes the gesture of moving up to a higher register in bar 240 and then down to a lower register in bar 241, which could be interpreted as a preparation for the next movement (see circles marked yellow). In the next example 6.35, by slowing down the end of the second movement and by finishing on a long note with a pivot note of B♭ played by the right hand thumb, it allows the hands to get ready for the next movement, which also begins on the same note, at the same register.[461] This is especially important since, due to an absence of a fermata, it suggests that the entrance of the third movement should come *a tempo*.

With the exception of the first and second movement, the last three movements of Op. 58 are linked together in a similar fashion to Op. 35.

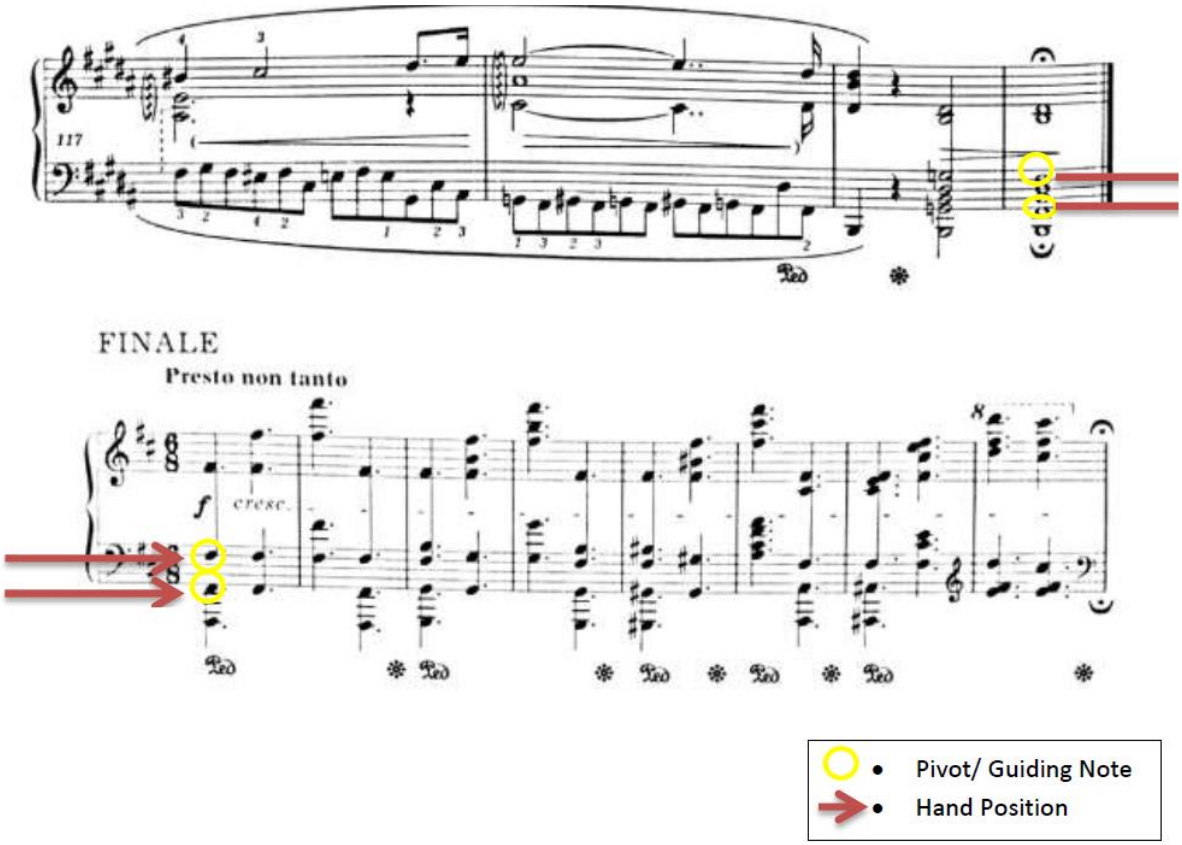



Example 6.37 Chopin Op. 58 End of Second Movement to Start of Third Movement[462]

In example 6.37, Chopin reuses the E♭ octaves at the end of the second movement as an opening for the third movement but this time, respelled as D#. Such enharmonic respelling is commonly used throughout Op. 58 as a way of composing transitions from one section to the other

[460] Pianists who have played each movement attacca include Seong-Jin Cho, Ivo Pogorelich, Martha Argerich and Yulianna Avdeeva.
[461] From bar 269 onwards, Chopin placed the marking of 'rallentando' to indicate a slowing down of tempo.
[462] Chopin, *Sonaty,* 59-60.

or of modulating. This technique is found frequently in the works of other nineteenth-century pianist-composers, which Gooley refers to as 'enharmonic magic'.[463] In this transition, it is evident that Chopin's haptics has influenced the compositional idea as he uses the same notes in the same register to launch straight into the next movement. Not only are the notes in the same register, the dynamic levels are also set at the same level *(fortissimo).*




Example 6.38 Chopin Op. 58 End of Third Movement to Start of Fourth movement[464]

In example 6.38, the ending of the third movement on a B major chord in root position in the left hand, and first inversion in the right hand, also sets up a convenient hand position for the following F# octaves. From a performer's perspective, Chopin's sonatas, when considered at a macro level, achieve organicism from a physical perspective as well.

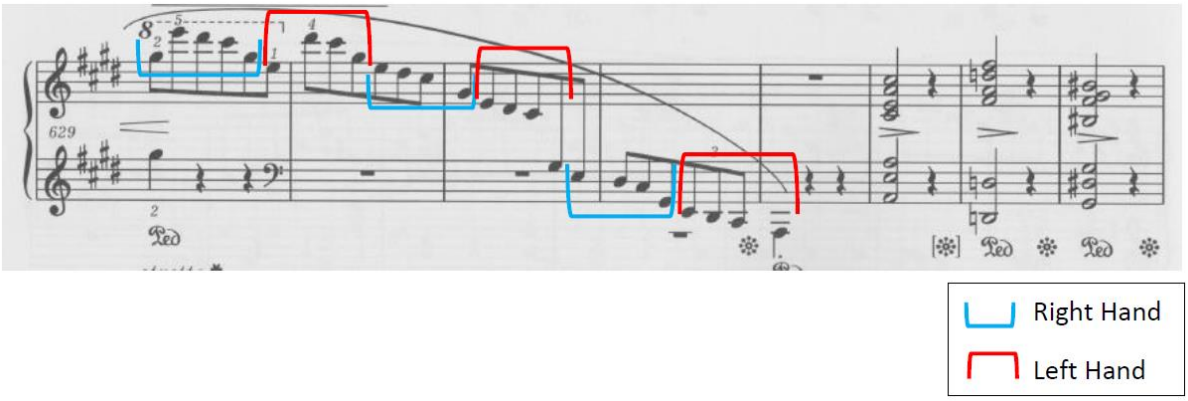
Points of Reflection: So What?

As a performer, I quite often ask myself, so what if I have done some form of analysis? How can this analysis inform my understanding of a composition or help me make better performance

[463] Dana Gooley cites Schumann's Op. 11 and Kalkbrenner's *Effusio musica* as examples. Dana Gooley, 'Schumann and Agencies of Improvisation' in *Rethinking Schumann* edited by Roe-Min Kok and Laura Tunbridge (New York: Oxford University Press, 2011), 144.
[464] Ibid, 66-67.

choices? The following section documents ways in which I have gained, as a performer, from undertaking this form of analysis.

'The essential point is how to finger things well' were the words of instruction by Chopin in his PM. As haptic analysis has shown, although Chopin writes his figurations pianistically for the piano and his hands, the fact remains that none of us possess the same handshape and size as him. Undertaking this form of analysis has allowed me to understand that Chopin's compositional choices are dependent and motivated by his haptic process, but that still does not change the fact that I possess an extremely small hand for the instrument.[465] Bounded by my physical limitation, I often have to come up with a different set of fingerings so that I can adapt his figurations to suit the size of my hand. That having been said, pianists often use alternative fingerings for practical reasons, for instance because they are safer to work with when performing under pressure. Martha Argerich, for instance, adapted the final virtuosic run in the coda of Chopin's Scherzo No. 3 at the 1955 Chopin Piano Competition



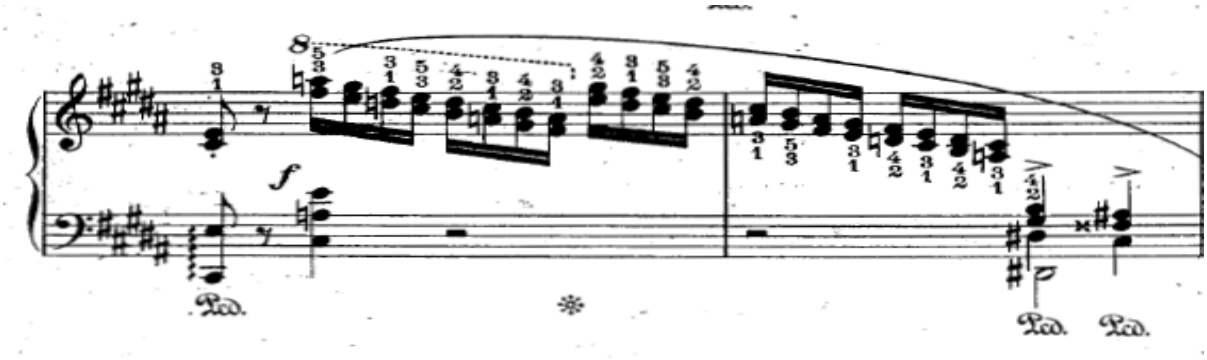

Example 6.39 Chopin Op. 39 Bars 629-636[466]

At section 6:45-48 of the video clip, Argerich splits the descending C# minor arpeggio into 2 parts, alternating between both hands, rather than playing it with just the right hand as Chopin had written.[467]

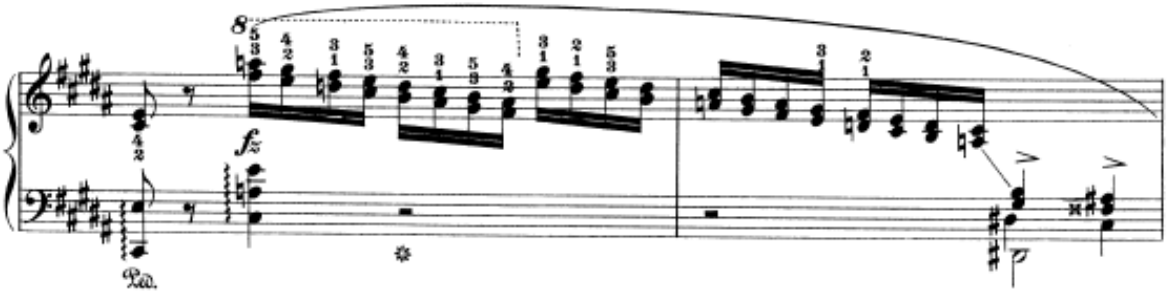
At times, an alternative set of fingering is used to achieve a smoother legato line. At the preliminary stage of the 2010 Chopin competition, in the performance of Chopin's double thirds etude,

[465] This is the case for both the modern piano and 1840s Pleyel as demonstrated in Chapter 2 pages 35-39. All adaptations have been tested on the modern piano and 1840s Pleyels.
[466] Fryderyk Chopin, *Scherza* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2010), 68.
[467] https://www.youtube.com/watch?v=_0RpoflsaUM

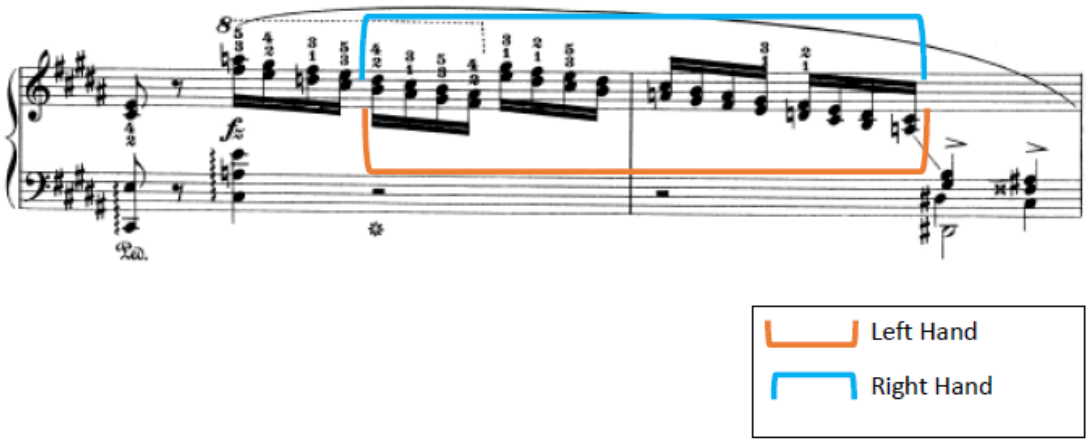
Op. 25 No. 6, Dong Fei-Fei used her left hand to play the lower part of a string of descending double thirds written solely for the right hand.[468]



Example 6.40 Chopin Op. 25 No. 6 Bars 47-48[469]

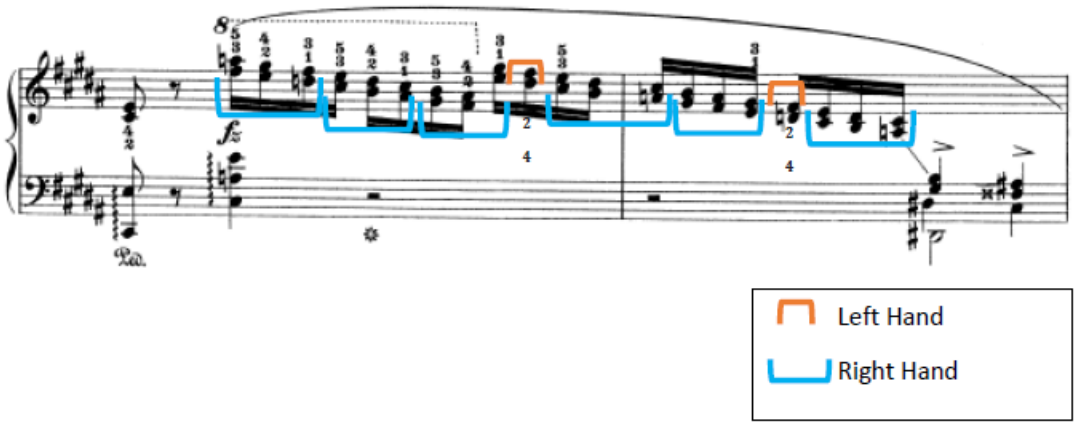


Example 6.41 Chopin Op. 25 No. 6 Bars 47-48[470]




Example 6.42 Chopin Op. 25 No. 6 Bars 47-48[471]

[468] https://www.youtube.com/watch?v=41b16fB0uvQ See 12:11-12: 16 of video clip.
[469] Fryderyk Chopin, *12 Études, Op. 25* edited by Alfred Cortot (Paris: Maurice Senart, 1916), 46.
[470] Frédéric Chopin, *Complete Works for the Piano Volume 7* edited by Carl Mikuli (New York: G. Schirmer, 1895), 84.
[471] Ibid, with fingerings by Pianist Dong Fei Fei.

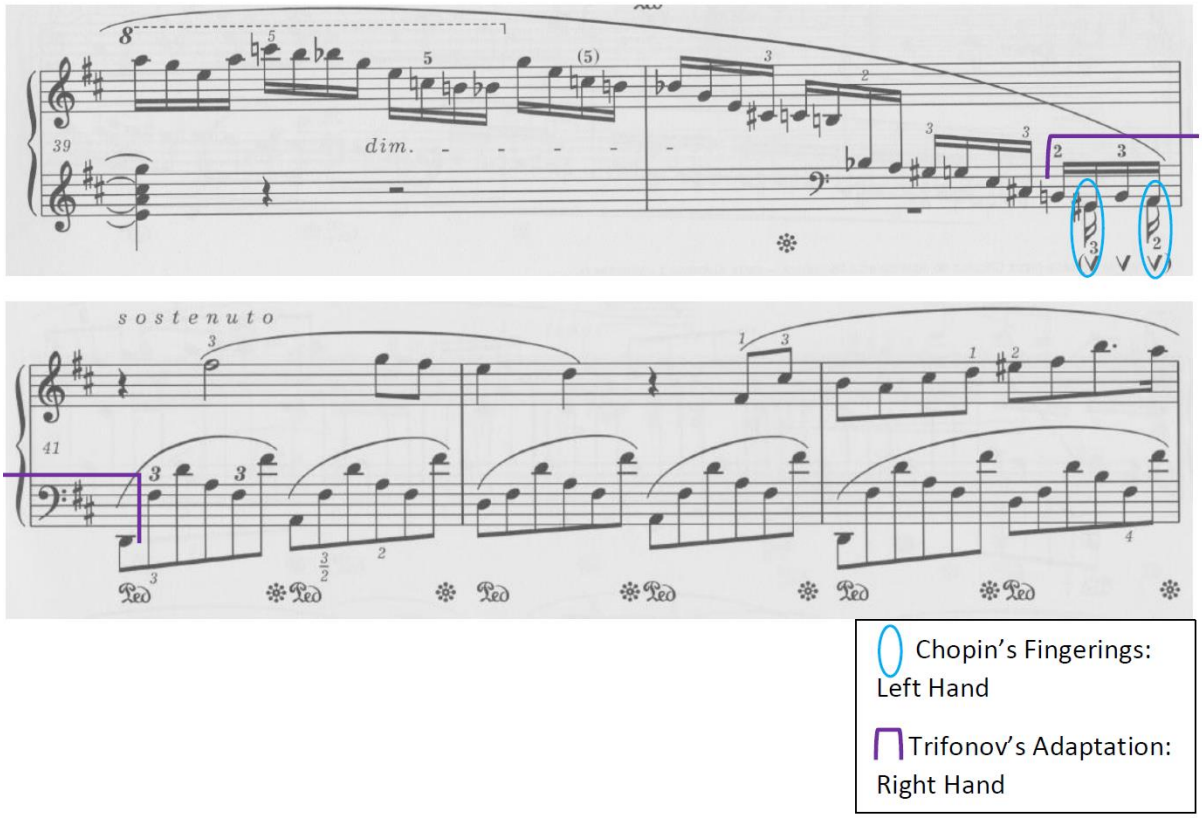



Example 6.43 Chopin Op. 25 No. 6 Bars 47-48[472]

The first two examples are annotated fingerings by Cortot and Mikuli respectively. The third example is the fingering used by pianist Dong Fei-Fei at the competition. The last example features my fingering, which is based on Mikuli's but with a slight variation. Mikuli's fingering works on the basis that the descending double thirds can be grouped into sets of three so that the right hand can be kept in the same position. Following Mikuli, I used 5-4-3 in the first three sets of double thirds. At D♮-F♯, instead of sliding my right-hand thumb (similar to Dong Fei-Fei) I use my left hand to play that particular double third so that by the time I get to the next double third E-C♯, I can repeat the same set of fingering.

In the same competition, the third prize winner, Daniil Trifonov adapted the notation of Chopin's B minor sonata in order to get a closer control of the phrasing. In order to achieve a 'safer' balance of sound for the entrance of the second subject, Trifonov made slight changes to the fingering of the previous bar.

[472] Ibid, with my fingerings.

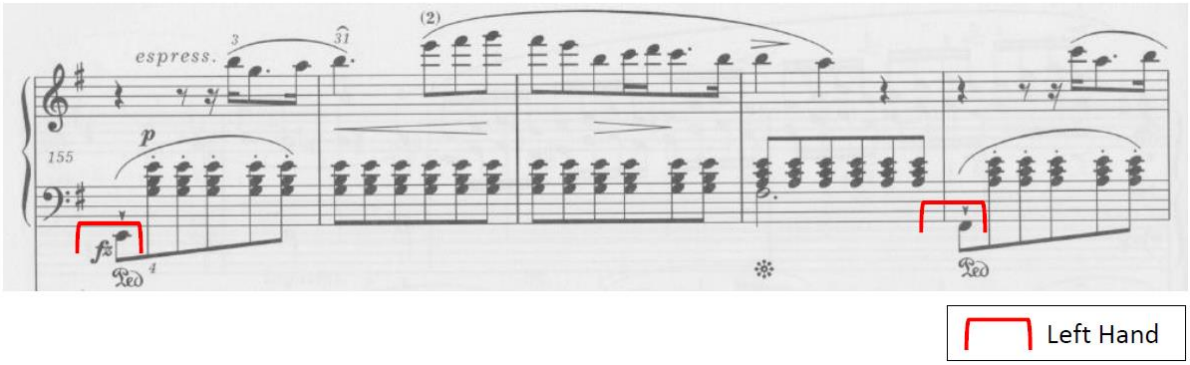



Example 6.44 Chopin Op. 58/I Bars 39-43[473]

At the last beat of bar 40, Chopin placed lower beams on both G♯ and A, an indication that it should be played with the left hand. Harmonically, this passage serves two purposes: it is an ending to the previous subject group and an entrance to the second subject. Chopin's choice of using the left hand to play these two notes is also due to reasons of voicing and timing. Firstly, the resolution to the D can be achieved easily by the pianist. Secondly, the distance to the next F♯ in the higher register provides a slight sense of rubato, preparing the transition to D major for the lyrical second subject. Personally, this is also the fingering that I prefer working with as I can physically feel the legato and feel more in control of voicing the perfect cadence A-D in the left hand. Trifonov's fingering demonstrates a different personal preference and his musical priorities. Between 1:22-1:25 of the video clip, Trifonov can be seen playing the entire passage together with the first D of bar 41 with just his right hand, while taking the remaining accompaniment passages with the left hand.[474] In doing so, the entire legato line is now carried out solely by the right hand and thus, Trifonov has to concentrate on voicing the resolution. Yet, because he has already played the first D in bar 41 with his right hand, Trifonov can ensure that he has maximum control over his left hand, without worrying about the jump

[473] Chopin, *Sonaty,* 40.
[474] https://www.youtube.com/watch?v=_LtmeGgtJNA&t=1298s Trifonov's Performance of Chopin's Op. 58.

to the next F♯. As I use Chopin's indicated fingering, I often have to be careful of this D- F♯ jump since in the event that it sticks out, it will result in an ineffective balance between the harmonic bass and the accompanying figures. A similar treatment can also be seen in the performance of Chopin's E minor piano concerto Op. 11 by the first prize winner of the 2015 Chopin competition, Seong-Jin Cho. In this instance, he crossed over his right hand to play the bass note E to allow the left hand ample time to prepare for the repeated chords. [475]




Example 6.45 Chopin Op. 11/I Bars 152-155[476]

In Preparation of My Recordings of Op. 35 and Op. 58

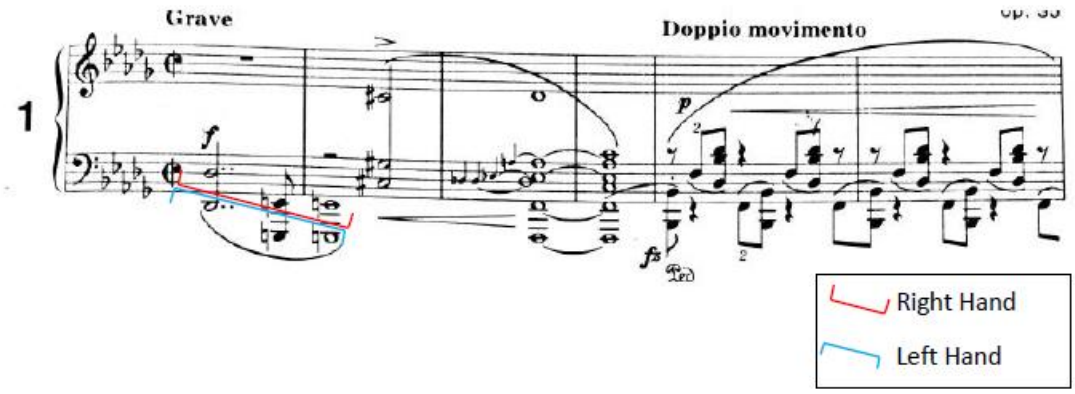
In the previous section, I have documented ways in which other pianists have made adjustments to Chopin's fingerings for various reasons. In the remaining sections, I will demonstrate how my research of historical instruments and haptic analysis of Chopin's compositions have influenced my performances of both these sonatas. Having undertaken this research over the past few years, I have increasingly changed the way I think and perform Chopin's compositions. The biggest change comes through the manner of execution - a more efficient way of playing - rather than any specific change in interpretation. Yet, at times, it is difficult to draw boundaries between technical and interpretational components, as a change in the manner of execution often leads to a change in tone production.

The very first opening descent of the diminished 7th of Op. 35 is a place where I have, over the years, made changes to my choice of fingering. Like many other pianists, I used to play the opening

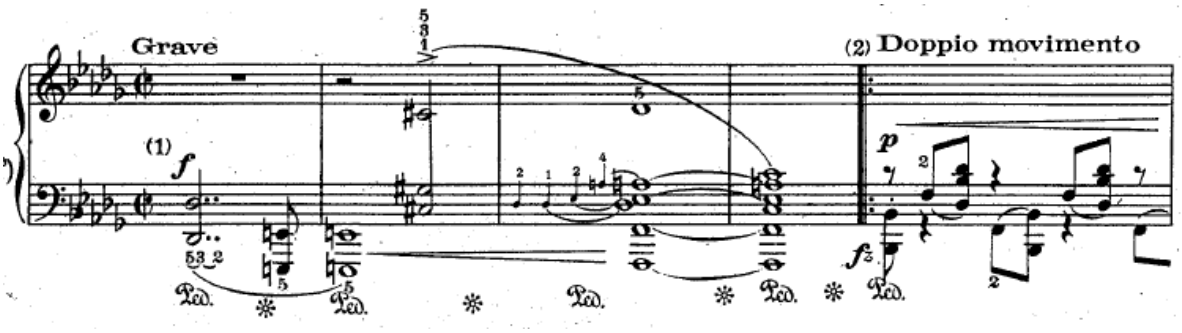
[475] https://www.youtube.com/watch?v=614oSsDS734&t=348s See 5:27-5:40 of the video clip. The first entrance of the crossover of hands is slightly cut but is demonstrated clearly at 5:37 where the same material is repeated in F# minor. This is also my preferred way of playing the passage but there are pianists who have played this passage with just the left hand. See for instance https://www.youtube.com/watch?v=CHJ_dl-ouTo&t=413s 4:28-4:38 Yulianna Avdeeva. https://www.youtube.com/watch?v=41sVzqYvA9c&t=304s 4:27-4:35 Danil Trifonov and https://www.youtube.com/watch?v=MenhxGOS3vU 5:37-5:49 Aljoša Jurinić.

[476] Fryderyk Chopin, *Concerto Op. 11,* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2010), 22.

octaves with my left hand. In a recording of Op. 35 from 2014, I lift my hands off the keyboard after playing the opening octaves with just the left hand, depending on the pedal to create the legato connection to the next note.[477] Such a manner of playing prioritises a bell-like ringing tone, not a sustained legato line. In recent years, I have chosen to play these octaves with both hands, using the fingering in example 6.46, or solely with the left hand but using the fingering provided by Cortot in example 6.47. In my recent recording, I have opted for the latter fingering.[478]




Example 6.46 Chopin Op. 35/I Bars 1-6[479]




Example 6.47 Chopin Op. 35/I Bars 1-5 Cortot[480]

Although the opening D♭ octave is played with pedal so that the left hand movement down to E♮ can achieve a legato without physically joining the notes together, increasingly, I begin to question what might be the better option: to join it physically with my hands or leave it with the pedal for the legato? After undertaking this research, I have opted for the former because the physical sense of

[477] See Folder 'Past Recordings': Chopin Op 35 I 2014, 0:00-0:07. At 0:05, I lifted my left hand to proceed to the next note.
[478] See Folder 'Op 35 Submission': Chopin Op 35 I, 0:00-0:06. At 0:04, I substituted my index finger for the lower D♭ to get to the subsequent octave.
[479] Chopin, *Sonaty,* 11.
[480] Fryderyk Chopin, *Sonate Op. 35* edited by Alfred Cortot (Paris: Éditions Salabert, 1984), 5

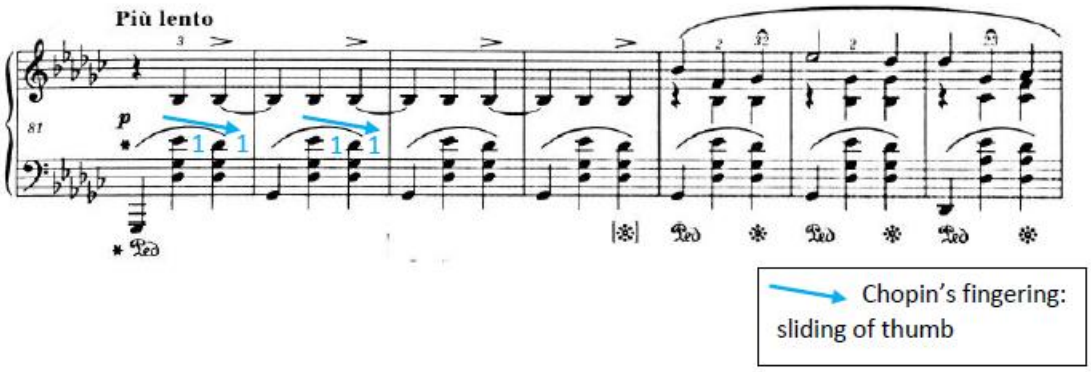
legato renders a stronger sense of gravity which is necessary for the starkness of this opening movement. Furthermore, Chopin has marked the D♭ as a double dotted minim rather than a minim with a rest, an indication that the D♭ therefore should be held for its full value. The slur marking from D♭- E♮ further testifies that these two octaves should be joined together.

A similar observation has been made by Alan Walker in his discussion of a contrapuntal passage in Chopin's C♯ minor Nocturne, Op. 27 No. 1 bars 19-23, where the fingerings marked by Chopin indicate a physical sense of legato on top of the pedal marking. Walker explains:

> Chopin's fingering is exemplary in this regard, because while it is not easy for a small hand, it shows how much trouble he took to avoid having to rely on the right foot to see his melodies through. The pedal was there to add colour, not to paper over whatever cracks might appear in the player's legato line.[481]

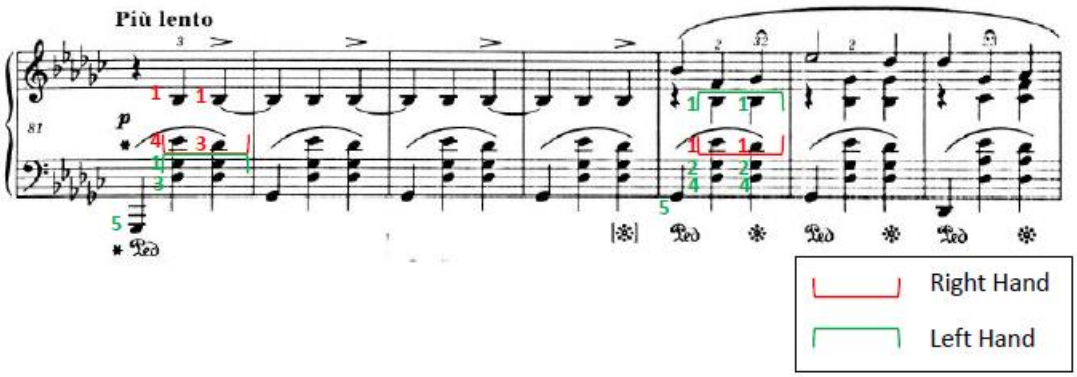
Of course, it is then up to each pianist to decide whether to achieve the legato with the hand or the foot.

In the previous chapter, I have discussed instances of Chopin's sliding fingering making perfect pianistic sense by affording a seamless legato line and a natural *diminuendo*. However, the hidden clause to this is that the pianist needs to have a hand that is big enough to allow such sliding to be musically effective. The trio section in Op. 35/II is an instance where the sliding fingering, although clever, does not work well for me due to the shape of my hands.




Example 6.48: Chopin Op. 35/II Bars 81-87[482]

[481] Walker, *Fryderyk Chopin*, 247.
[482] Chopin, *Sonaty,* 23.

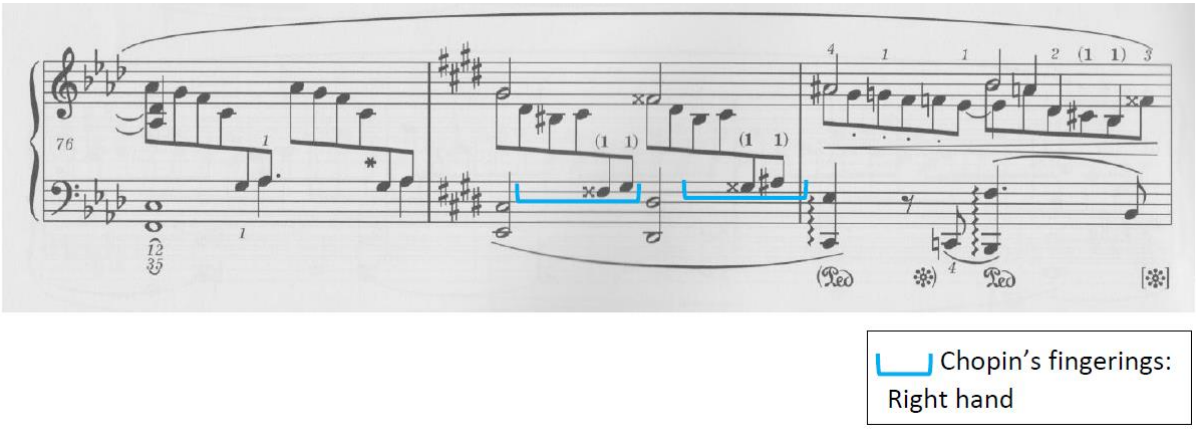



Example 6.49: Chopin Op. 35/ II Bars 81-87 Cortot[483]

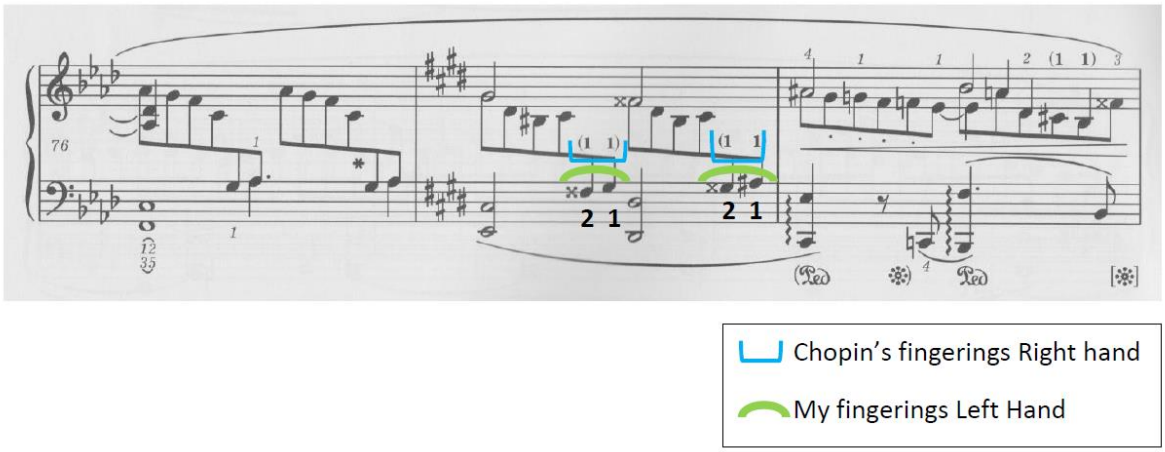
Although I do have a stretch that is just over an octave, my thumb is much shorter than Chopin's. Using his fingering, as illustrated in example 6.49, would require me to stretch from D♭-E♭ both on the modern piano and on the 1840s Pleyel which I am unable to do. This stretch not only results in an uncomfortable tension in my left hand but also makes the ensuing *diminuendo* difficult. An alternative solution, one that is suggested by Cortot in example 6.49, is to swap the alto and tenor voice around.[484] This alternative fingering provides me with a greater control over the accompanying chords in the left hand but also demands greater voicing technique in the right hand: having to voice both the soprano and tenor voices simultaneously in different dynamic directions. A video clip taken from a high angle has been recorded to demonstrate my performance of this segment with my suggested fingering.[485]

Similarly, in the trio section of Op. 58/ III, I have also rearranged the voices so as to achieve a smoother line in the modulations.

[483] Ibid.
[484] See commentary by Cortot. Ibid, 24.
[485] See video example 6.49a.



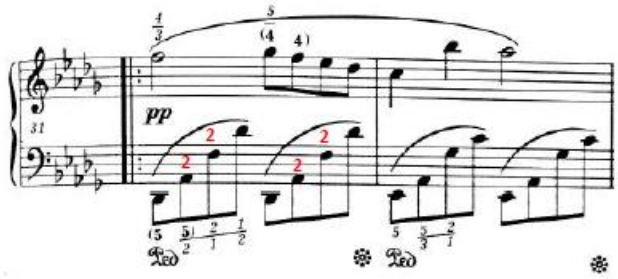

Example 6.50 Chopin Op. 58/III Bars 76-78[486]




Example 6.51 Op. 58/III Bars 76-78[487]

While the sliding fingering, as suggested by Chopin, in example 6.50 allows the right hand to be kept in one position, the stretch between the minim G♯ in the treble and F𝄪 is just too big a gap for me to make the resolution to the next G♯ sound smoothly.[488] In this instance, I therefore have to rely on the pedal for the accompanying chords in the left hand and turn to my index and thumb for F𝄪- G♯ as illustrated in video example 6.51a.[489]

[486] Chopin, *Sonaty*, 64.
[487] Ibid, 64.
[488] See video example 6.50a
[489] See video example 6.51a.

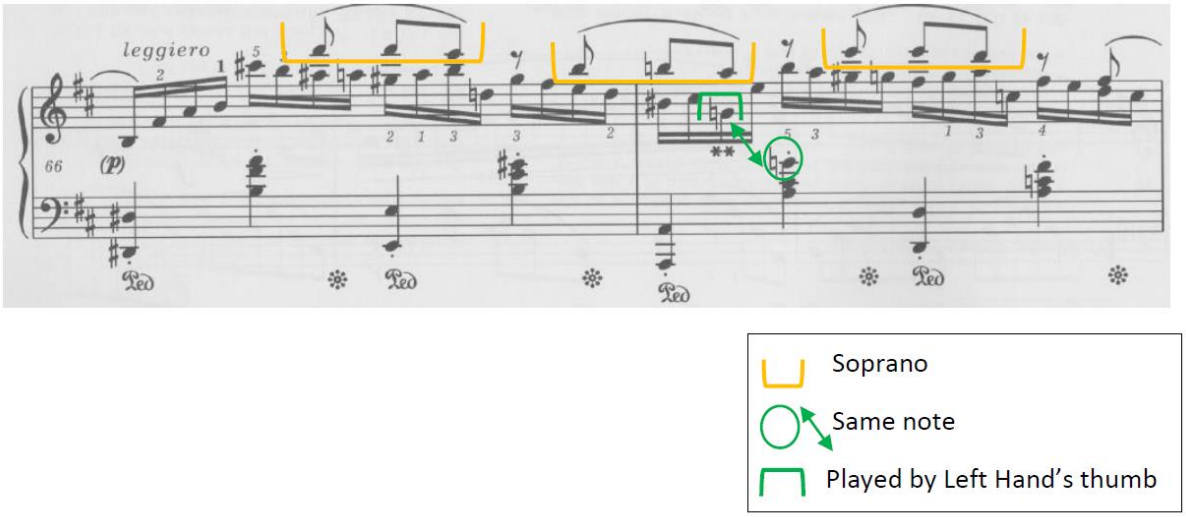



Example 6.52 Chopin Op. 35/III Bars 31-32[490]

The above two examples are cases of Chopin's fingering, despite being very natural and effective for his hands, clearly not working for me. Nevertheless, the idea of his sliding fingering has been an inspiration for me to develop my own fingering for the accompaniment passages in the trio section of Op. 35/III. Whereas Chopin suggested a sliding of the fifth finger between D♭- A♭, this being what he considered to be one of the stronger fingers, this approach often results in me bumping the A♭, especially when I am unfamiliar with the instrument which I am performing on. The solution which I have discovered is to slide my index finger between the A♭- D♭.[491] In this case, either set of fingering rests on the principle that the hand could be kept in the same shape and position.

As demonstrated, numerous instances of Chopin's contrapuntal procedures are motivated as a result of his long thumb. With a smaller hand and a shorter thumb, I often lack the stretch required to play intervals of more than an octave. On other occasions, my thumb also lacks the power necessary to generate brilliance.

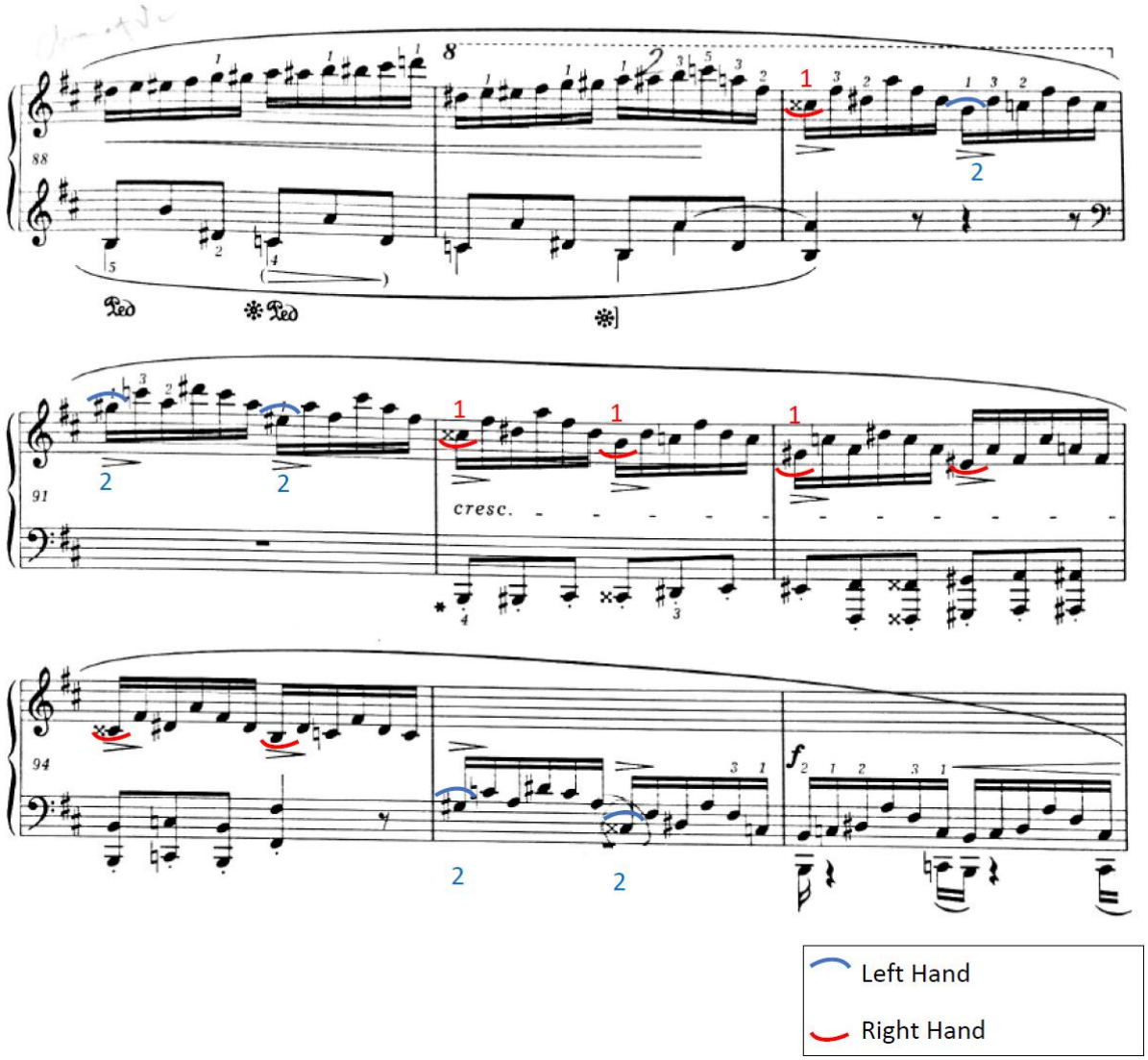
[490] Chopin, *Sonaty*, 31.
[491] See video example 6.52a.




Example 6.53 Chopin Op. 58/I Bars 66-67[492]

The above example illustrates an instance of Chopin's haptic counterpoint where at bar 67, the interval of a major 9th between G♮-A is not within the reach of my right hand. My solution, as demonstrated in video example 6.53a, is to play the G♮ with my left thumb which is also repeated as the top note of the next $V^7$ chord.[493]

[492] Chopin, *Sonaty*, 42.
[493] See video example 6.53a for a demonstration on the right hand and 6.53b for a demonstration when both hands are played together.



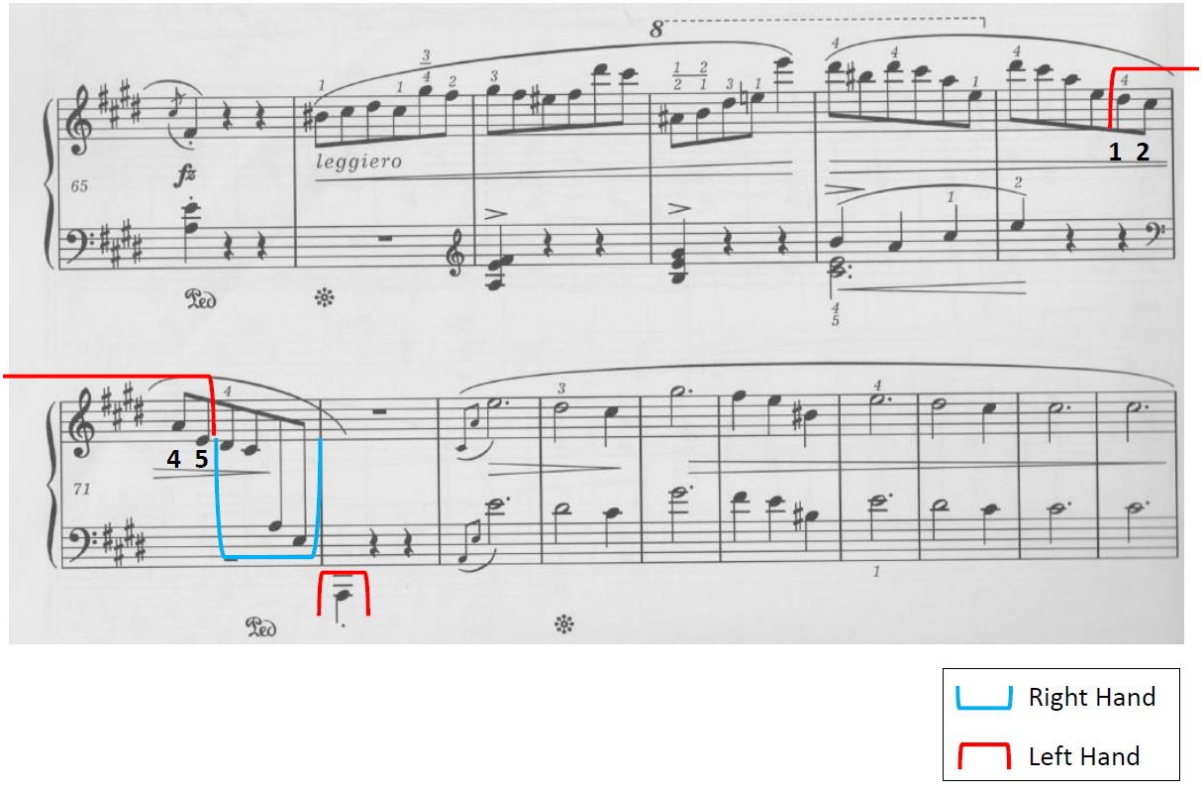

Example 6.54 Chopin Op. 58/IV Bars 88-99[494]

In Chopin's connecting passage to the restatement of the rondo theme in E minor, the construction of the semiquaver pattern in the right hand from bar 90 onwards again makes use of the wrist rotary movement and the thumb to generate a fuller sound, the ergonomics of which Chopin explored in his earlier compositions. Such a construction also allows him to achieve a legato line in the right hand since the continuity of the movement when carried out by the hand remains uninterrupted. Nevertheless, with the nature of my hand, playing the figuration with the fingerings intended by Chopin would not allow me to achieve the required brilliance. As a result, I have to, whenever possible, use my left hand to play the first note of each group of semiquavers to bring out the necessary accents. This is extremely crucial in terms of sound so that in the absence of an accompanying bass, as in bars 90-91 and bar 95, the listener does not detect a sudden drop in sound level due to a lack of power in

[494] Chopin, *Sonaty*, 71.

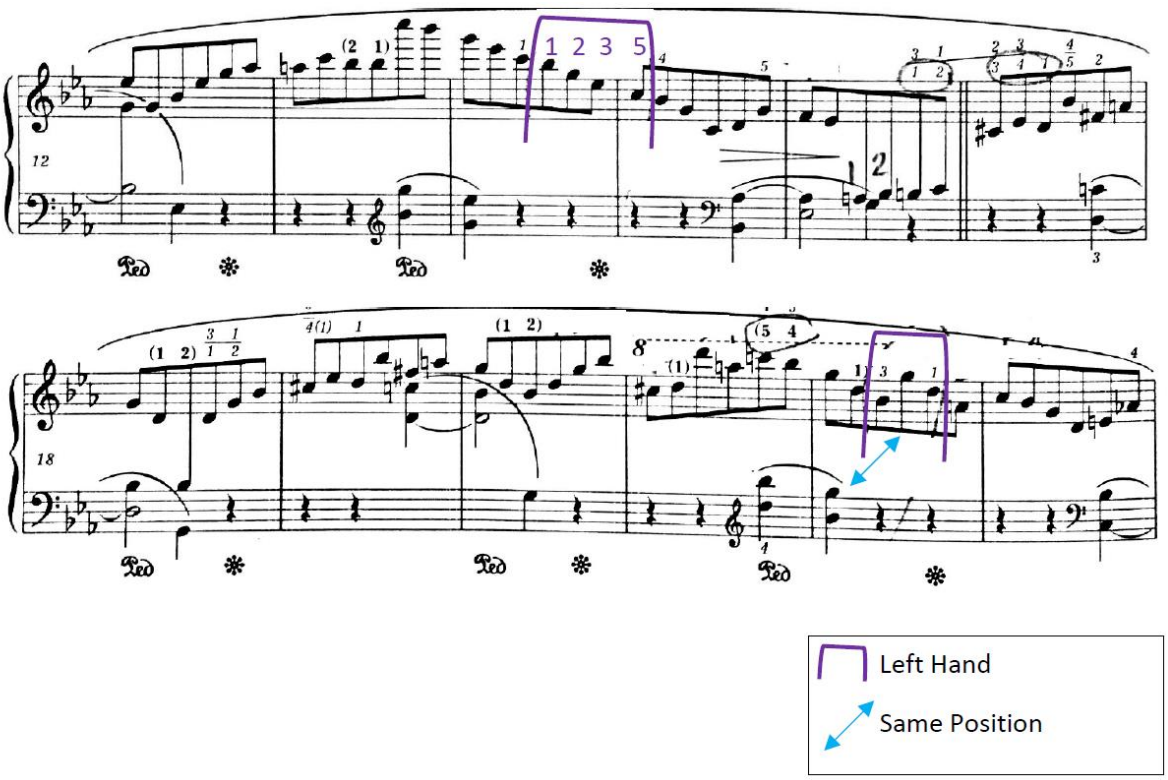
my right hand. In bars 92-94, this adaptation of fingering is not necessary because the left hand joins in with a melodic interest while the right hand takes a secondary role.[495] This is an example of where Chopin's music, despite being written idiomatically for the instrument and ergonomically for his hand, clearly requires adjustment in order for me to play it well.

Just as Argerich rearranged the virtuosic passages of Chopin's coda of the Op. 39 Scherzo, I have done likewise in similar passages.




Example 6.55 Chopin Op. 54 Bars 60-76[496]

[495] See video example 6.54a for a demonstration of this excerpt at slow motion.
[496] Chopin, *Scherza,* 70.




Example 6.56 Chopin Op. 58/II Bars 12-23[497]

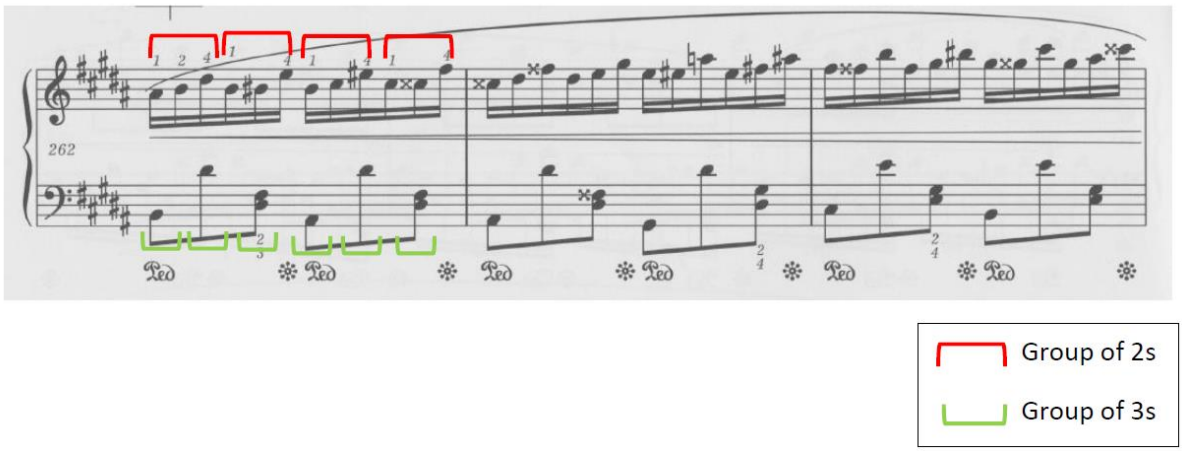
In example 6.55 bars 69-71 of Op. 54 and example 6.56 bar 14 of Op. 58/II, where the right hand is solely responsible for virtuosic passages, I have used the left hand to play a portion of it, as demonstrated in video clips.[498] At bar 22 and bar 30 of Op. 58/II, the motivation to take some of the runs with the left hand comes from the fact that the left hand was playing a chord that was in the same position as the right hand. At this point, one might be tempted to ask: 'if Chopin has written ergonomically for the instrument, why did he not conceive of this seemingly easier arrangement and instead put the performer to a task of performing a more difficult version?' Earlier in chapter 2, I have discussed and documented extensively Chopin's compositional methods where ideas appeared to him on the piano spontaneously, not forgetting that Chopin himself was a more than capable pianist. Arguably, virtuosic passages would have come to him intrinsically in one sweep of movement whilst composing. Furthermore, the piano keys on which Chopin composed most of his works are much lighter than those of the modern grand pianos.[499] As a modern performer then, in order to achieve the *leggiero* touch (a kind of lightness and sparkling quality) in Chopin's runs on a modern piano where

[497] Chopin, *Sonaty*, 54, 55.

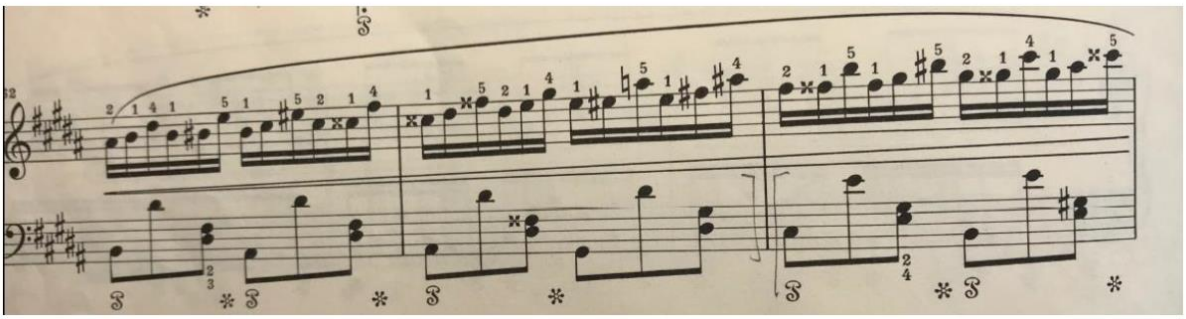
[498] See video examples 6.55a and 6.56a. Both these video examples are recorded at slow motion for clarity. Video example 6.55b is recorded at normal speed.

[499] As my research reveals, not all nineteenth century Pleyels have that lightness and sparkling quality. The 1848 Pleyel at the Cobbe Collection has keys that are rather heavy while the RAM Museum square Pleyel corresponds closer to the usual Pleyel's description. See an earlier discussion in chapter 2, pages 35-39.

the keys are heavier, I have to experiment with different arrangements during my practice sessions. This is also a strategy that Argerich has adopted. Of course, under stressful performance conditions, it is also safer to play the 'easier' arrangement.[500]




Example 6.57 Chopin Op. 58/IV Bars 262-264[501]



Example 6.58 Chopin Op. 58/IV Bars 262-264[502]

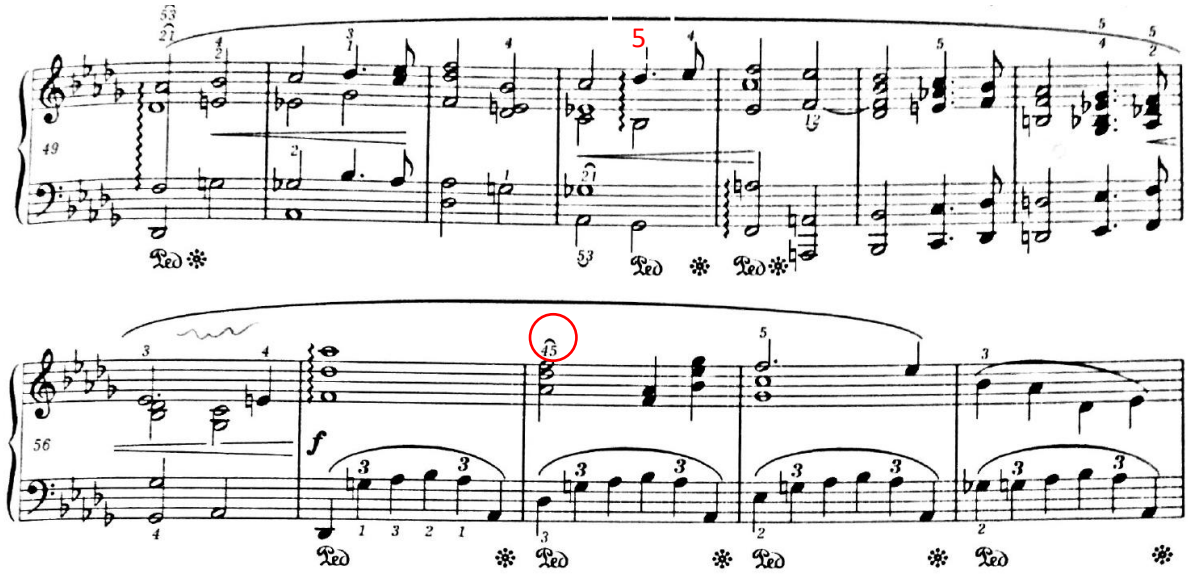
In the coda of Op. 58/IV, the fingering in example 6.57, although not given by Chopin, makes a clear reference to how the passage has been constructed. The semiquavers are grouped in fours where the thumb is used at the start of each group for voicing reasons. Quite possibly, these would have been the fingerings used by Chopin himself since he had a very long thumb. In addition, using this set of fingering will bring out the effect of a haptic hemiola since the four groups of semiquavers cut across the 6 quavers in the left hand.[503] Nonetheless, this set of fingerings does not work well for me due to the nature of my hand. Despite understanding how the construction of the passage has

[500] As demonstrated in video examples 6.55c and 6.55d, I do have sufficient technique to perform this passage with just the right hand. However, in performance, I rarely use this set of fingering.
[501] Chopin, *Sonaty*, 80.
[502] Frédéric Chopin, *Piano Sonata B minor op. 58* edited by Ewald Zimmermann and fingering by Hans-Martin Theopold (Munich: G. Henle Verlag, 2004), 40.
[503] See video example 6.57a.

come through Chopin's haptics, I have had to use another set of fingering provided by Hans-Martin Theopold.[504] Yet, this fingering has limitations. Although it allows me to achieve a legato line, the placement of the thumb at different positions does not generate sufficient level of power that is required for this climactic moment; therefore, I have to voice the bass notes with the left hand.

In search of *Bel Canto*

As a different approach to score-based analysis, I have in my dissertation prioritised the physical movements accompanying each figuration to find out their overall contribution to various aspects of Chopin's compositional process. The terms that I have coined - haptic counterpoint, haptic exploration and haptic hemiola - all seek to understand his compositions within a specific type of haptic process that stemmed from the way in which Chopin touches the keyboard based on the ergonomics of his handshape. The end result, as I have noticed, is Chopin's search for a seamless line of legato, the parallel of which we can find in the *bel canto* operas of the 1830s when he first arrived in Paris. Translating these aesthetics into action, a pianist's fingers will need to stay in close contact with the keys in order to portray the longest possible legato line.




Example 6.59 Chopin Op. 35/I Bars 49-60

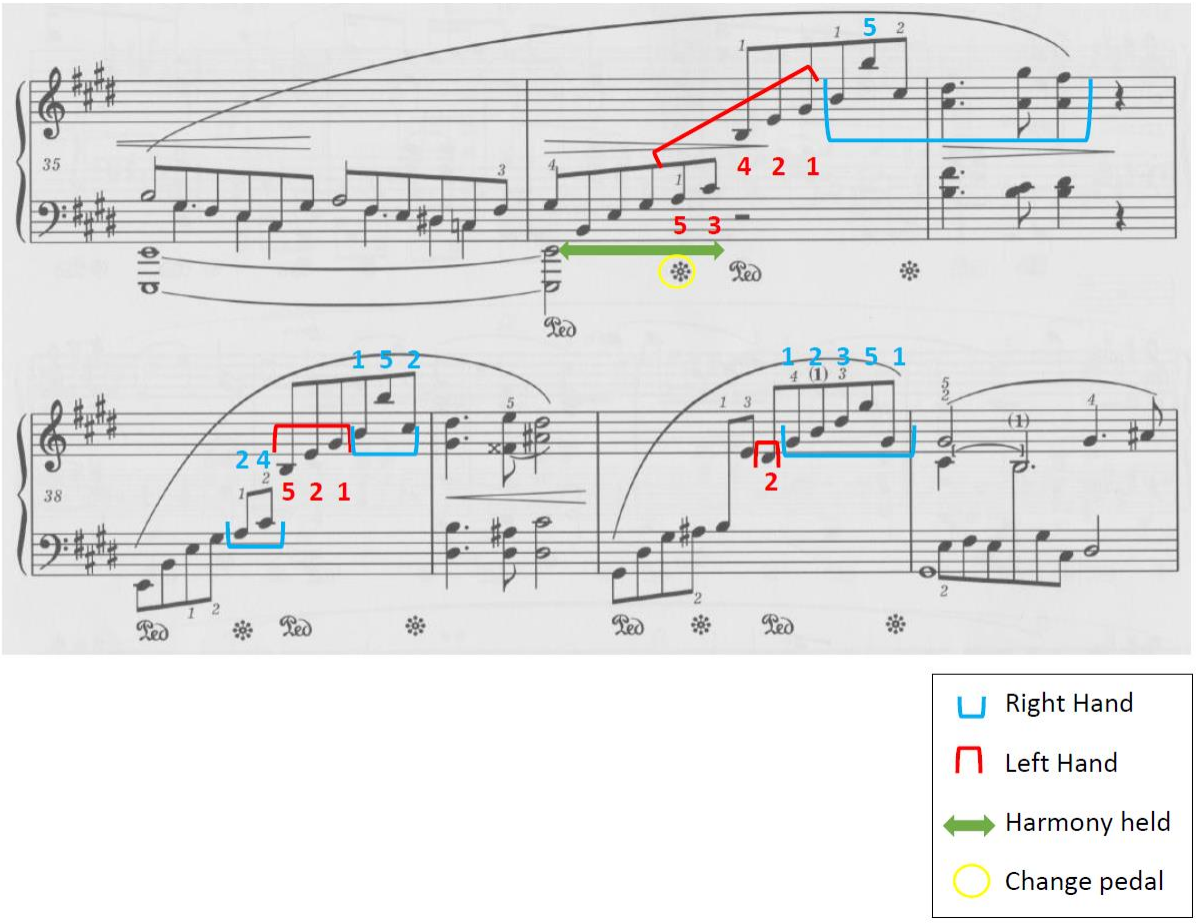
When analysing my 2014 recording of Op. 35, I detect a tendency to lift off my hands in chordal passages such as passages of the second subject in example 6.59, leaving the task of legato to my right foot.[505] Instead, the responsibility for this should be with the hands. Lifting off my hands in such

[504] See video example 6.58a. I am extremely thankful to my teacher, Ms Lim Tshui Fang for pointing me to this fingering because neither of the fingerings provided by the Ekier nor Paderewski editions worked well for my hand.

[505] See 0.59-1.05 and the opening passages of my recording in folder: 'Past Recordings': Op 35 I.

passages, rather than holding notes down for their full value, not only produces a different sound quality (one that is more resonant and bell-like) it also prevents me from physically feeling the legato that is crucial to Chopin's haptic process. The adjustment that I made during my June 2019 recording is that I used both my fourth and fifth fingers to connect notes in the top line, so that I can achieve the sustain of the notes physically.[506] In example 6.59, at bar 52, for instance and at bar 58, as suggested by Ekier to substitute the fourth for the fifth finger on the longer note.

As a result of my research and haptic analysis of his output, in my 2019 recordings of both Chopin's sonatas, I adopted a lateral approach to the keyboard, where I minimise the vertical movements. This results in greater fluidity in his bel canto passages and a more secured finger work in his most virtuosic passages.




Example 6.60 Chopin Op. 58/III Bars 34-37[507]

When I first recorded the Sonata Op. 58 in December 2018, I split the arpeggio passage between two hands in the trio section of the third movement as illustrated above.[508] This decision had

[506] See Folder 'Op 35 Submission': Op 35 I 1:01-1:59.
[507] Chopin, *Sonaty*, 62.
[508] See Folder 'Past recordings': Op 58 III Bars 29-78.

come from the manner in which I had always split the runs in virtuosic passages. Yet, after analysing my own playing, I realised that splitting the runs in slow passages spoiled the musical effect that Chopin was trying to achieve: a solo singing line. By splitting the arpeggio between both hands, although it is easier to play since the right hand does not have to turn at awkward intervals, the sound is also harder to control as it now crosses between the hands. Furthermore, in bar 36, lifting off my left hand to play the fifth quaver (note A) will cause me to sacrifice the E major harmony slightly since at that instance there is a need to change the pedal. Consequently, in my subsequent performances and recordings of Op. 58, I have now reverted to Chopin's fingerings.[509] There are, therefore, instances when Chopin's fingerings are essential for us pianists to follow. At the same time, such fingerings or the way the notes are arranged over the staves tell us not only harmonic ideas but also help to convey his musical ideas and phrasing.

[509] See Folder 'Op 58 Submission': Op 58 III 2:27-5:31

## Chapter 7: Epilogue

Although early analysts including Réti and Schenker brought Chopin into debates about musical unity, it remains difficult to locate his music analytically because his compositional techniques, which derive from haptic practices, do not fit many predefined categories. As I have demonstrated in chapter 2, score-based analysis is impoverished because Chopin's pianism has been ignored as a component part of the analytical process. Taking another perspective, through following Chopin's *PM* and his footsteps as a pianist, I came to realise that his choice of motives and the manner in which he develops them could potentially have physical implications. Following this line of inquiry, I began to prioritise his haptics as an essential tool to his compositional process. Starting with his works in smaller genres and followed by the sonatas as case studies, I witnessed a gradual progression of how his haptics took shape. He started with transition passages before developing his approach to include more complex thematic materials that helped to hold schematic parts together at a micro level.

In so doing, I have been able to articulate why a performance-based approach to analysing Chopin's sonatas and his other compositions might be needed, and subsequently I have developed my mode of analysis to illustrate a way of bringing his haptics back into the analytical equation as an attempt to explain something of his unusual construction of his sonatas. I have also outlined the intellectual challenges offered by an attempt to analyse his compositions on the assumption that they constitute, in some way, a written-down improvisation with haptics at their core. Despite arriving at the same conclusion of organic unity as previous scholars, nonetheless, attributing that organicism to a physical cause has allowed me to extend the frame of reference for interpretation and to explain the reasons why Chopin did not make certain choices that might have looked sensible on paper.

At this point, one might be tempted to ask, 'what's next?' Indeed, the remit of this submission has not allowed me to venture as far as I would have hoped. While I have exemplified all my contentions using musical scores and video clips as central tools in this discussion, a more sophisticated use of technology would help to illustrate the rotational movements of the hands even more clearly. Light-point technology (often used among athletes and dancers to analyse their movements so as to prevent potential injuries or to increase movement efficiency) could also be employed in the next stage of this research to make clear some of the circular motions. In so doing, this research has the potential to effect injury prevention as well as helping pianists to search for the most economical use of movements required to play a passage. Using light-point or similar technologies could take my haptic analysis of Chopin and the works of scholars such as Code further and bring such research closer to the territory of performance studies by adding scientific dimensions.

In a different context, when light-point technology combines with haptic analysis, this could also be used in conservatoire teaching.

Since haptic analysis prioritises physicality as a central tool of composition, this approach might yield fruitful results in the works of nineteenth- and early twentieth-century pianist-composers such as Liszt and Ravel, and later composers such as Prokofiev and Rachmaninov. During Liszt's years as a touring celebrity, his virtuosity was often criticised as a circus act or party trick. Yet, his keyboard virtuosity, like Chopin's haptic exploration, could also provide ways in which to understand the architectural decision-making behind his compositions. Recognising the importance of Liszt's virtuosity, Schumann explained that when Liszt performed, 'he must be heard and also seen; for if Liszt played behind scenes, a great deal of the poetry of his playing would be lost'.[510] What Schumann identified in this instance was that although Liszt's compositions could be understood through the aural content alone, the visual component of Liszt performances added a vital sense of drama and theatricality to his music.

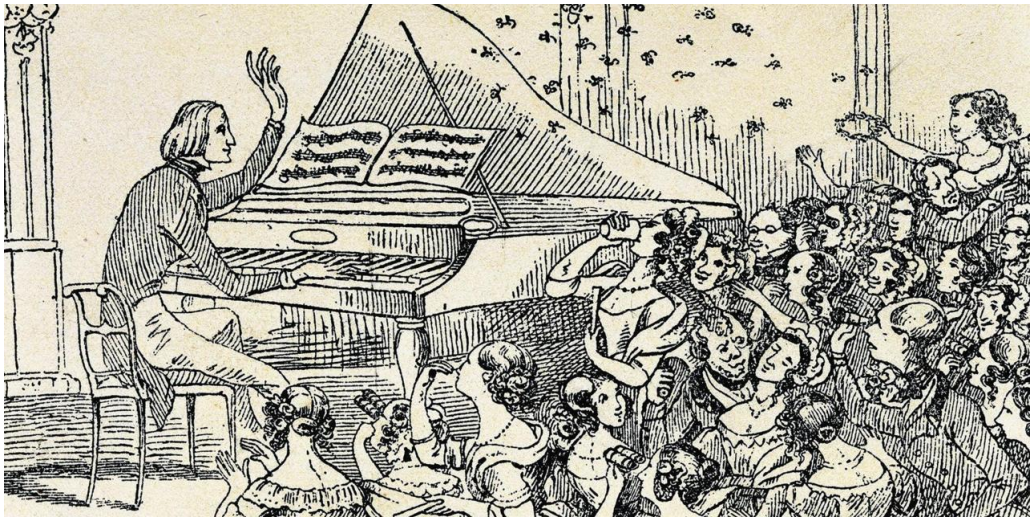
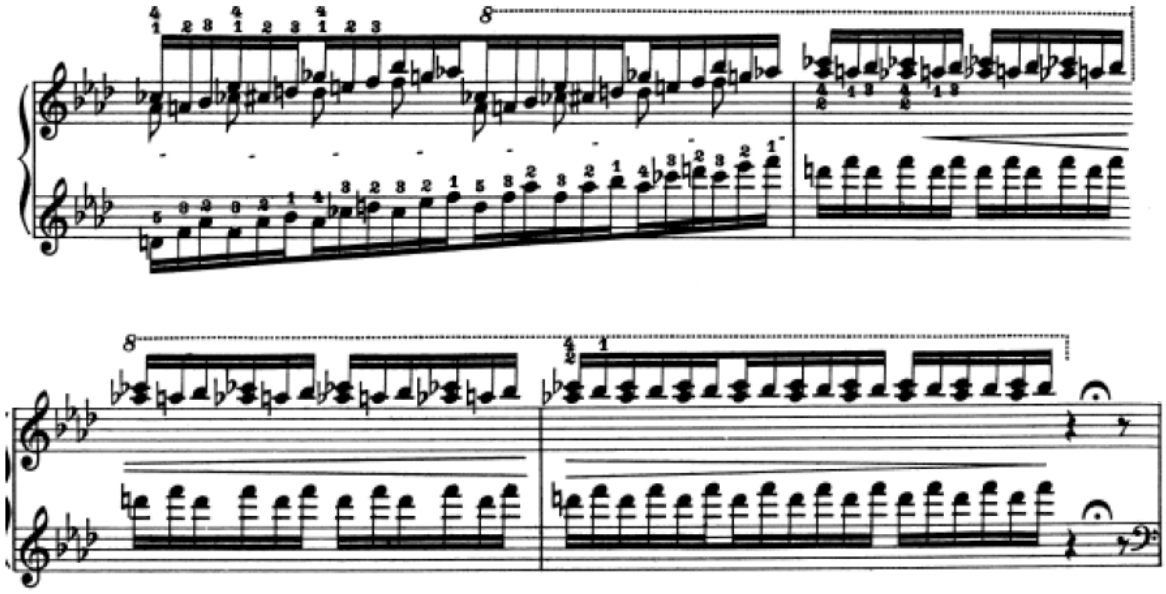


Figure 7.1: Caricature of Liszt (1842) by Theodor Hosemann

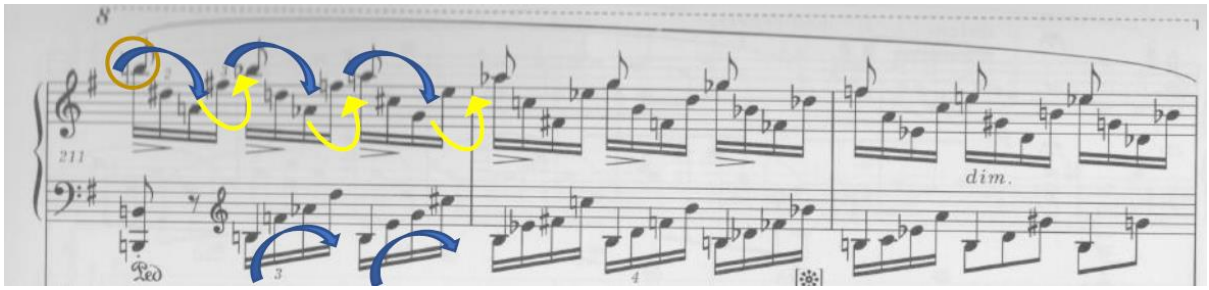
Unlike Chopin, Liszt's haptics make room for such theatricality to be included in his compositions, such as his trademark hand 'flung in the air' as shown in the above illustration. A haptic analysis of his compositions would allow the musician to explain how his haptics have helped to create passages which, despite being ergonomic, have led to bigger hand movements that not only contribute to the narrative of his music but unite together with structural and harmonic principles to form a complete whole.

[510] Robert Schumann, *On Music and Musicians* edited by Konrad Wolff and translated by Paul Rosenfeld (New York: Pantheon 1946), 156.

Whereas Schenkerian analyses have tended to explain how compositions belonging to the 'great Austro-German' canon have followed a linear harmonic progression of neatly resolving towards the tonic, haptic analysis can be useful to demonstrate how thematic and transition materials, when used to occupy a given harmonic space, can differ from one composer to another due to the specific handshape of the originator. To compare passages by Liszt and Chopin for instance:



Example 7.2 Liszt Au bord du Source Bars 10-12[511]

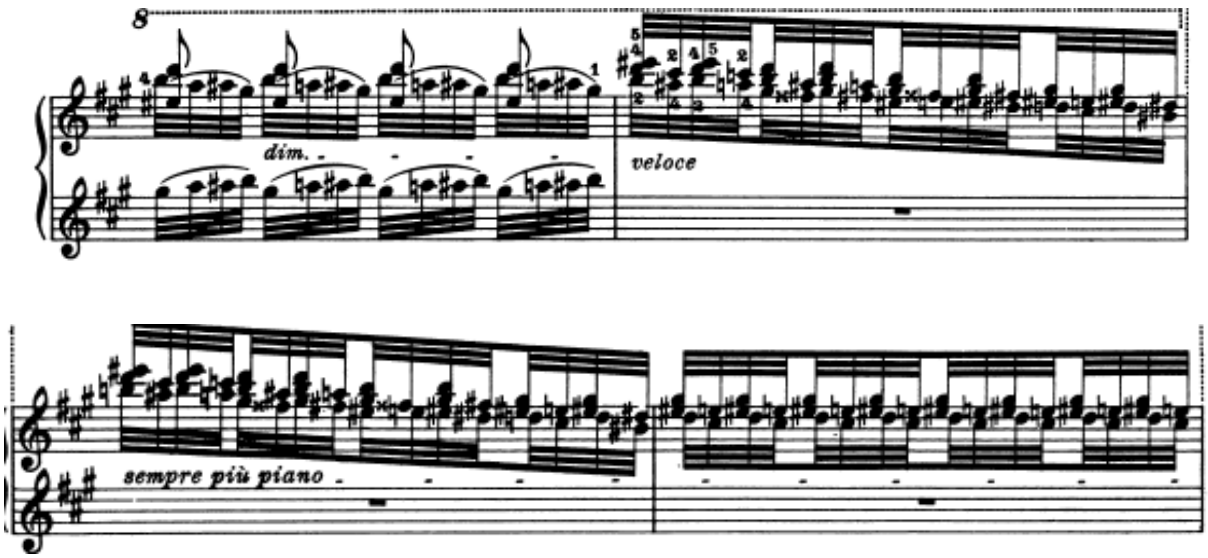



Example 7.3 Chopin Op. 11/I Bars 210-213[512]

In both examples, Liszt and Chopin are extending a V7 harmony, yet both have developed very different transition materials. With Chopin, as I have explained in Chapter 2, the nature of the writing is due to his long thumb. Liszt on the other hand, has created a decorated chromatic passage with the thumb on the double notes in bar 10, before changing to the index finger in bar 11. While I have not

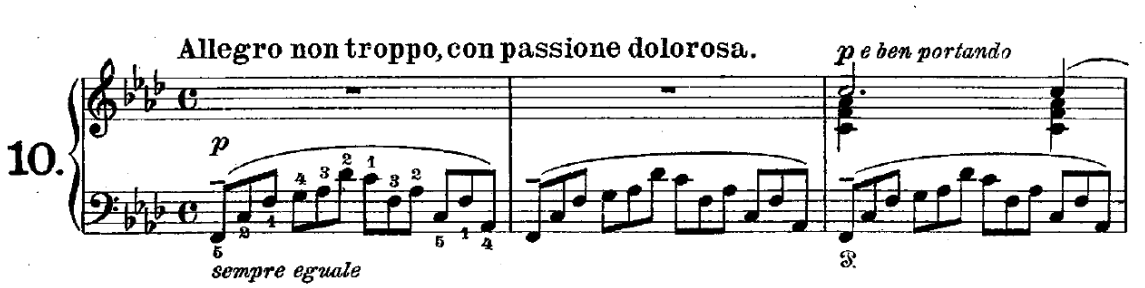
[511] Franz Liszt, *Original Kompositionen für Klavier zu zwei Händen Teli VI* edited by Emil von Sauer (New York: C. F. Peters, 1960), 233.
[512] Fryderyk Chopin, *Concerto Op. 11* edited by Jan Ekier (Kraków: The Foundation for the National Edition of the Works of Fryderyk Chopin, 2010), 27.

investigated Liszt's haptic procedures in great depth, such chromatic decorations are frequently found in his other works including *Feux Follets*.



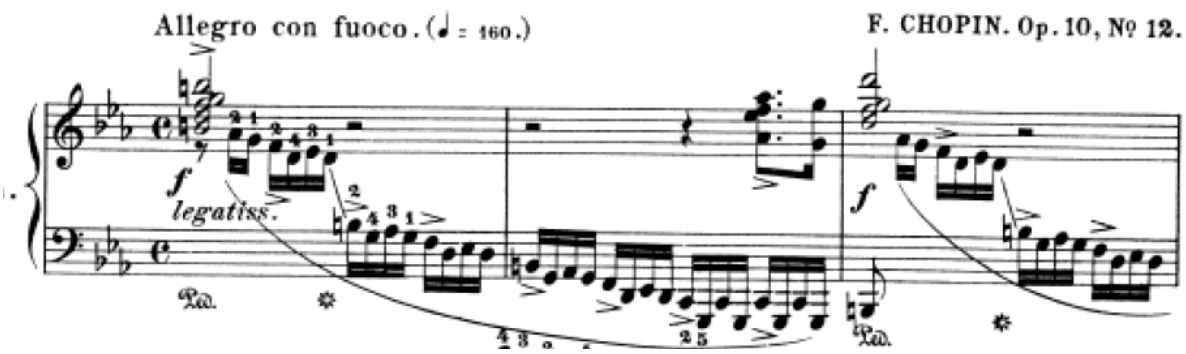

Example 7.4 Liszt Transcendental Etude No. 5 Bars 68-71[513]

Arguably, his continued choice of decorating chromatic passages in such a manner must, in part, be down to the way in which his hands touch the piano; certain positions and intervals suit his hands better than others. I believe this would be worth further investigation in the future. Thematically, hand sizes also play a significant role in the composer's choice of intervals when forming motives.



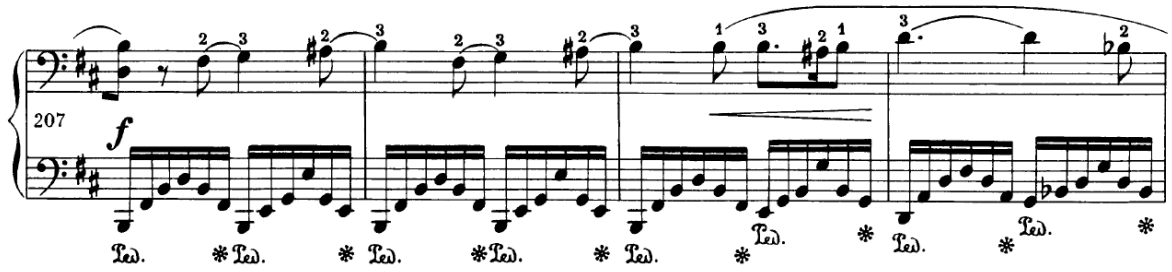

Example 7.5 Henselt Op. 5 No. 10 Bars 1-2[514]

[513] Franz Liszt, *Etüden für Klavier zu zu zwei Händen Teli III* edited by Emil Von Sauer (New York: C. F. Peters, 1960), 35.
[514] Adolf Henselt, *Etüden Op. 5* edited by Emil Von Sauer (Leipzig: C.F. Peters, 1922), 48.



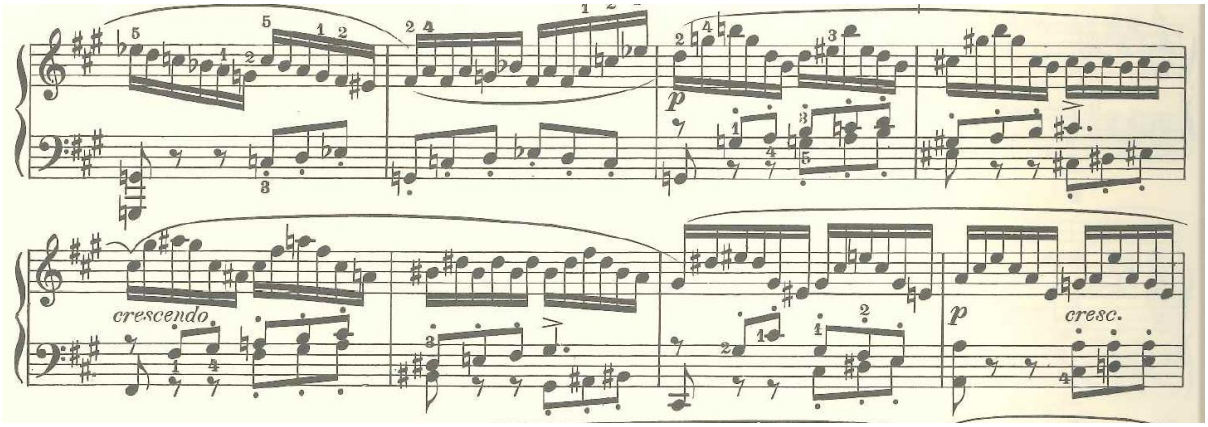

Example 7.6 Chopin Etude Op. 10 No. 12 Bars 1-3[515]

A contemporary of Chopin, the German composer Adolf von Henselt was known to have extremely large hands. In examples 7.5 and 7.6, etudes in which the left hand is given a motivic line, the choice of notes and fingerings used by each composer differed greatly. While both pieces are virtuosic and challenging, Chopin's left-hand study works better for my hand than Henselt's, as in the latter, the perfect 4th between A♭-D♭ played by fingers 3-2 creates an uncomfortable stretch. Nonetheless, for a pair of big hands such as those of Henselt, this stretch would not pose any problem. It is quite possible that Chopin, without such a big pair of hands as Henselt, would not have conceived of such a motive since it is not ergonomic for his hands. Lastly, there are also harmonic considerations, as demonstrated by examples 7.7 and 7.8.




Example 7.7 Chopin Sonata Op. 58/IV bars 207-10 [516]

[515] Frédéric Chopin, *Complete Works for the Piano Volume 8* edited by Carl Mikuli (New York: G. Schirmer, 1895), 53.
[516] Fryderyk Chopin, *Chopin Complete Works Volume VI Sonatas* edited by Ignacy Jan Paderewski (Warsaw: Instytut Fryderyka Chopina, 1950), 108.




Example 7.8 Mendelssohn Fantasy Op. 28 Bars 87-94[517]

In these extracts, both composers have used arpeggios for virtuosic reasons; Mendelssohn clearly keeps his arpeggios within an octave, while Chopin extends to a 10th or even a 12th. As a pianist-composer, Chopin often explored numerous hand positions, whether through wrist rotary movements or thumb extensions, granting him a greater range of harmonic sonorities and possibilities. In contrast, Mendelssohn tended to explore his harmonies through a smaller handshape. In sum, as we divide compositional aspects into three broad categories: transition figurations, thematic materials and harmonies, that in turn form structure, haptic analysis can help to reveal how composers have made their choices based on the way in which they interact with the keyboard. The extent to which composers explore their haptic procedures differs, as in the case of Mendelssohn and Chopin; although this leads to a range of different musical results, when the music is analysed and reduced through Schenkerian techniques these differences disappear.

Having laid out some of the future directions that haptic analysis can take, I conclude with this question: in what ways can haptic analysis change the field of music analysis? The field of haptic analysis aims to include a newish group of analysts and performers in a new way. Having been trained as a pianist foremost, I have learnt to prioritise compositional elements beyond the standard hierarchies of harmony and structure. As playing the piano has so often been a physical activity, thematic ideas or even decorative scalic passages in compositions can be translated into various hand, wrist or arm movements. For a composer like Chopin, whose initial compositional ideas come from the instrument itself, haptic analysis allows a performer to attribute some of the construction of his compositions to specific haptic characters that his hands possessed, and which affected how the final composition unfolded. The 'capacity to think with the fingers' as Samson has eloquently put it, was precisely a tool that pianist-composers of the nineteenth century included amongst their other

[517] Felix Mendelssohn, *Kompositionen Für Klavier zu zwei Händen Band III* edited by Theodor Kullak (Frankfurt: C. F. Peters, 1910), 13.

compositional techniques.[518] The different sizes and shapes of their hands have led to some creative solutions to rigid musical structures and traditional harmonic progressions, which this mode of analysis can help to illuminate.

[518] Jim Samson, *Virtuosity and the Musical Work: The Transcendental Studies of Liszt* (Cambridge: Cambridge University Press, 2003), 46-47.

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*régles sur l'expression, sur la manière de phraser, sur la ponctuation musicale, etc : suivie de douze études : Op. 108*. Paris : Chez I. Pleyel et Cie., rue Grange Batelièred, [1831].

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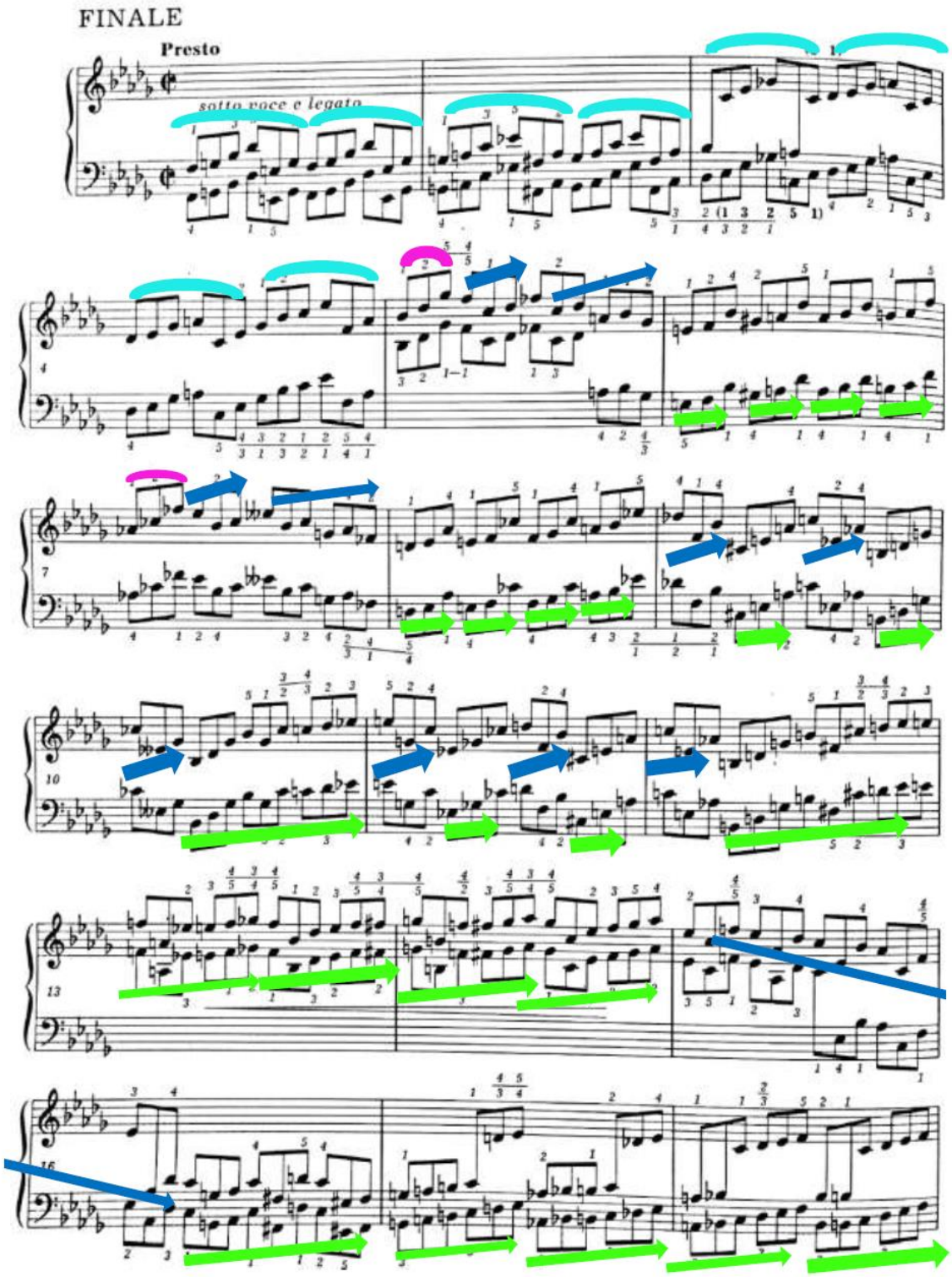
Practical Documentation 1: Video Examples Abbreviation

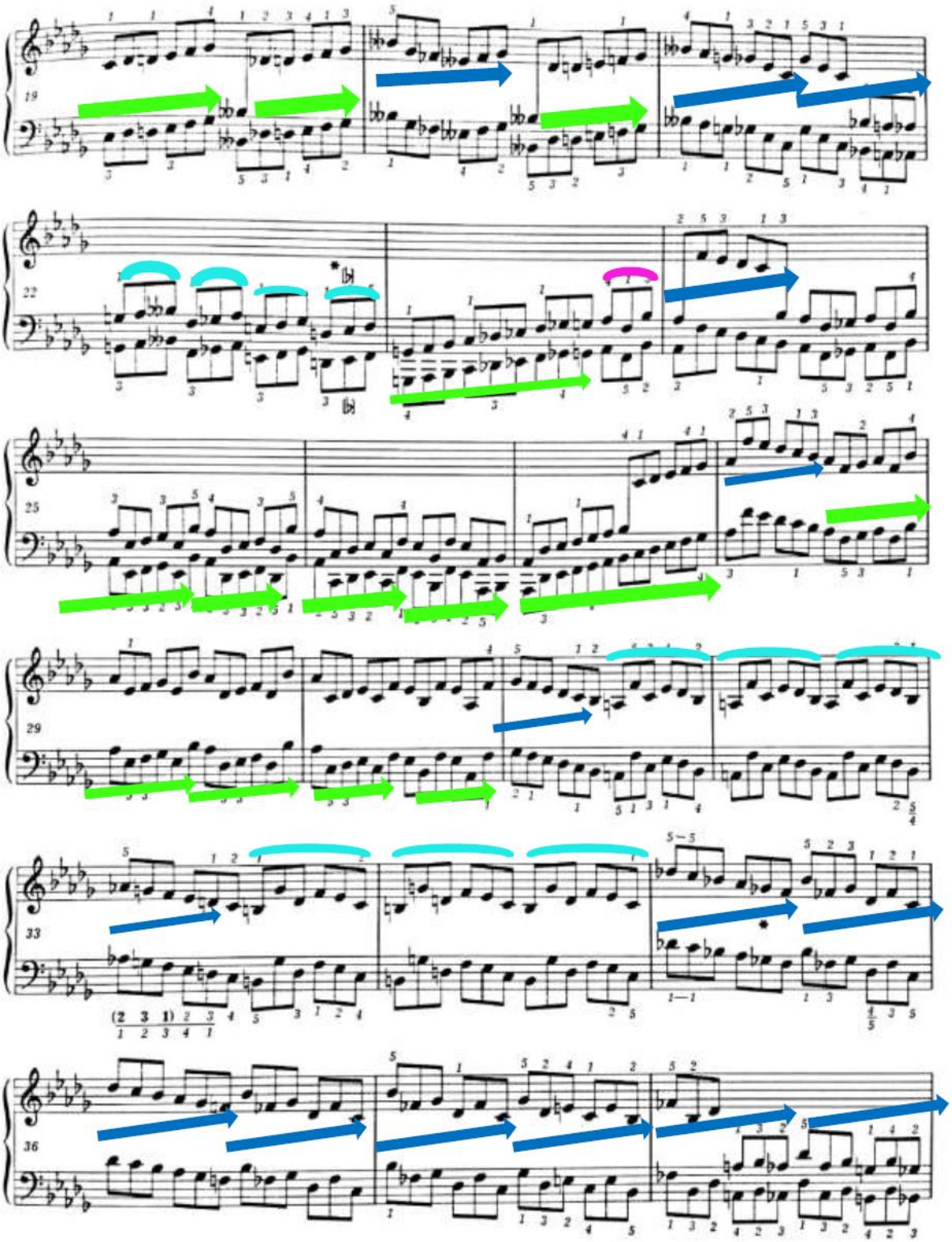
| | |
|---|---|
| BN | Camera positioned at the Back, played Normally |
| BSM | Camera positioned at the Back, played at Slow Motion |
| SLH | Camera positioned at the Side, Left Hand played Normally |
| SRH | Camera positioned at the Side, Right Hand played Normally |
| SN | Camera positioned at the Side, played Normally |
| SSM | Camera positioned at the Side, played at Slow Motion |
| SRHSM | Camera positioned at the side, Right Hand played at Slow Motion |
| SLHSM | Camera positioned at the side, Left Hand played at Slow Motion |
| TBH | Camera positioned from the Top, Both Hands played Normally |
| TLH | Camera positioned from the Top, Left Hand played Normally |
| TRH | Camera positioned from the Top, Right Hand played Normally |
| TN | Camera positioned from the Top, played Normally |
| TSM | Camera positioned from the Top, played at Slow Motion |
| TRHSM | Camera positioned from the Top, Right Hand played at Slow Motion |
| TLHSM | Camera positioned from the Top, Left Hand played at Slow Motion |

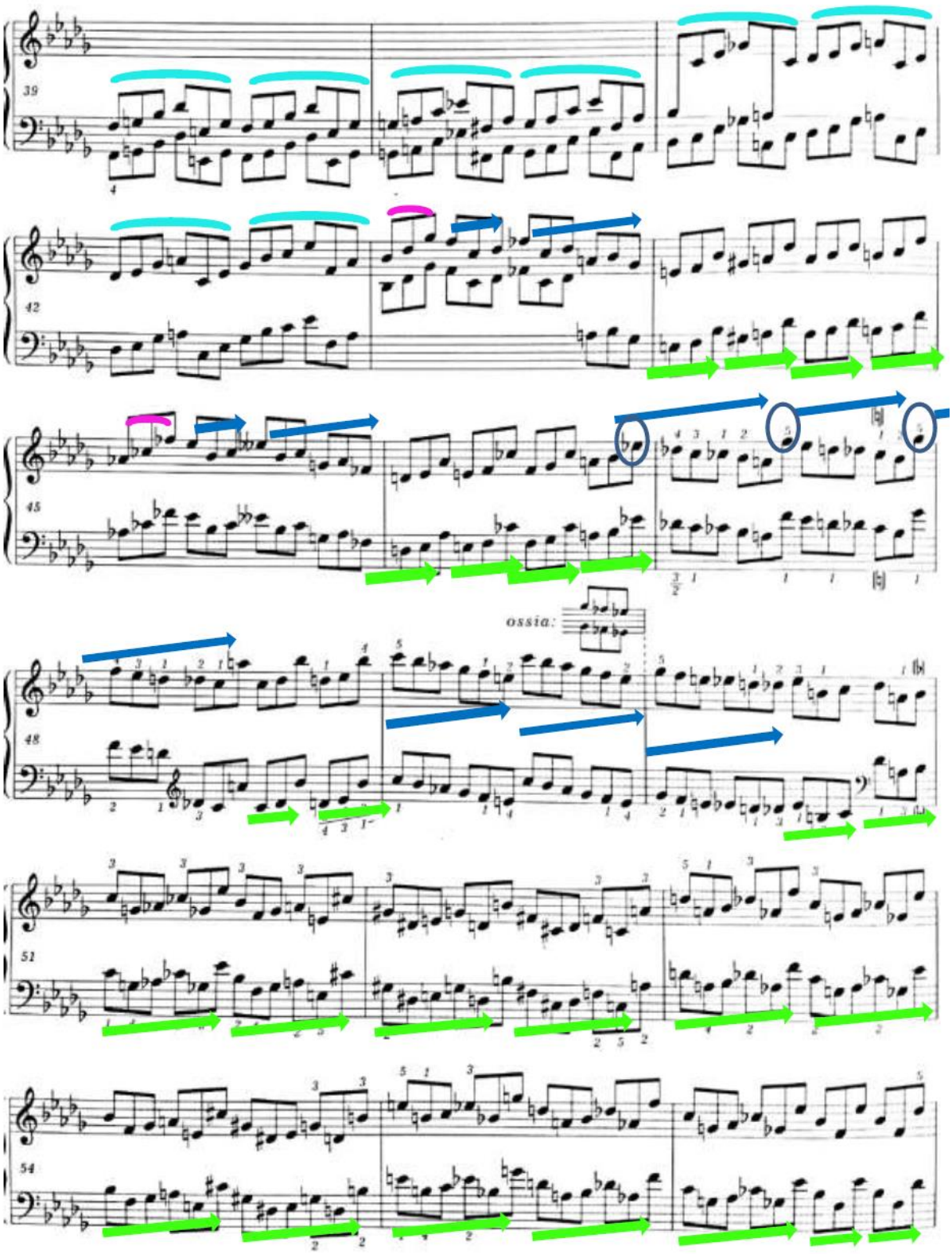
Practical Documentation 2: Minuet and Trio

| Beethoven | Haydn | Mozart |
|---|---|---|
| Op. 2 No. 1 3rd Movement | Hob.XVI:8 2nd Movement | K282 2nd movement |
| Op. 2 No. 2 3rd Movement | Hob.XVI:7 2nd Movement | K 311 2nd Movement |
| Op. 2 No. 3 3rd Movement | Hob.XVI:9 2nd Movement | |
| Op. 7 3rd Movement | Hob.XVI: G1 2nd Movement | |
| Op. 10 No. 2 2nd Movement | Hob.XVI:11 Last Movement | |
| Op. 10 No. 3 3rd Movement | Hob.XVI:10 2nd Movement | |
| Op. 14 No. 1 2nd Movement | Hob.XVII: D1 2nd Movement | |
| Op. 22 3rd Movement | Hob.XVI:4 Last movement | |
| Op. 26 2nd Movement | Hob.XVI:1 Last Movement | |
| Op. 27 No. 2 2nd Movement | Hob.XVI:2 Last movement | |
| Op. 28 3rd Movement | Hob.XVI:12 2nd Movement | |
| | Hob.XVI:6 2nd movement | |
| | Hob.XVI:3 Last Movement | |

Practical Documentation 3



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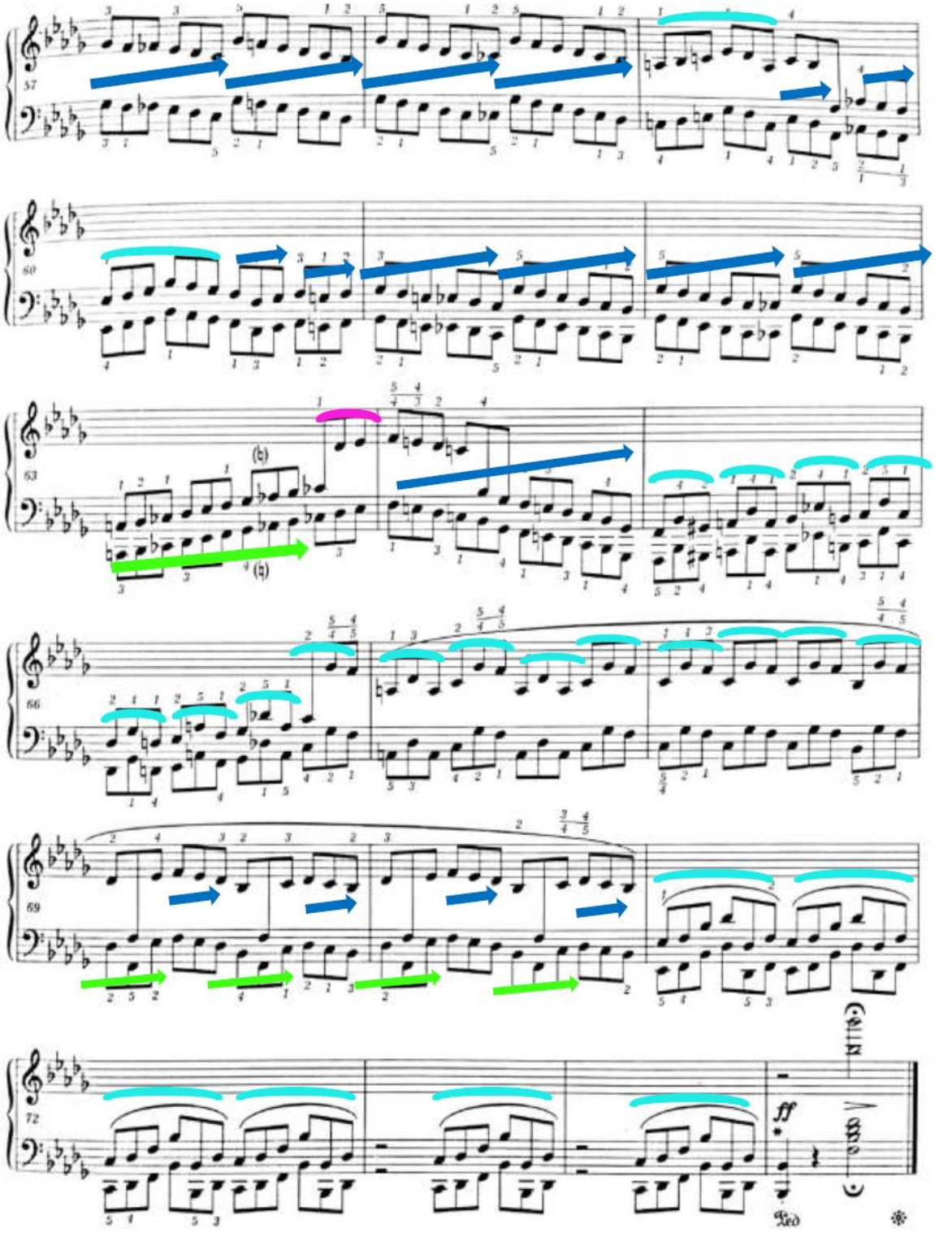
Circular wrist movement
Right hand elbow upwards
Left hand elbow upwards
Half of the wrist movement
Start of an upward movement

Practical Documentation 4: A Conversation with Yulianna Avdeeva 30th March 2017, 1.30pm.

CL: Cloudy Lim

YA: Yulianna Avdeeva

CL: In an interview with Singapore Symphony orchestra, you mentioned briefly about an 'improvisation-like' quality in his Op. 11; can you tell me more about your views on Chopin's improvisation in general?

YA: For me, Chopin's improvisation comes about through his flexibility with his musical language. He is freer in structure compared to other composers and his melodic ideas come from the soul. The melody he writes never lose sight of this legato and speaking quality, similar to the human voice, which he uses in all of his music. There is this sense that his music is developing on its own. Beethoven for instance always had a very clear structure. (She referred to the 32 variations which she played earlier in her concert the previous day)

CL: Do you see such improvisatory impulses in his other works, sonatas for instance?

YA: Absolutely. The last movement of Op. 35 is an improvisation. The second sonata is more compact, the character is much clearer and obvious. The third sonata is grandeur, more rhapsodic, as if he is as always searching for something. In the first movement, he is always changing the mood very quickly and developing different motives together.

CL: The last movement of Op. 35 has often received a lot of criticisms. Rubinstein described it as 'wind howling around the gravestones.' How do you interpret this unusual movement?

YA: For me, the last movement is like a short reaction after death: last observations watching from a distance without being able to change the past anymore. There is nothing you can change, what's done is done; there are no more personal activity involved here. In my opinion, the music of Op. 35 ends with the funeral march. The finale comes as a natural reaction to it. There are various possibilities to how you can play this finale. You have to try out different voicing but you need ultimate concentration when playing this finale otherwise you will get lost in no time!

CL: Chopin's sonatas have often been problematic for analysts, scholars and writers especially during his time and the decades following his death. Perhaps the genre which he received most criticisms, what do you think of his sonatas and more generally of piano sonatas as a genre?

YA: Absolutely not. His sonatas are highlights of his work, where he showed so much of his own musical language. He is like a chameleon here; never predictable […] Liszt composed just one sonata, Beethoven 32, Schubert about 18. There are all different. It is the genius of the composer and their creativity to use only one structure to express different kinds of music.

CL: What do you think of analysis in general and its relation to performance?

YA: Analysis is helpful because it allows one to get as much information out of the music as possible and to understand the piece better. Nevertheless, it is not sufficient to play or perform music based on these 'rules'. In order to make music, one has to play from the soul rather than the brain.