



## Beethoven's Cello: The case of Op.102 No.1 Cello Sonata

Exploring Effective & deliberate practice strategies and techniques with the use of 4th  
Beethoven Cello Sonata

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## Summary

Undoubtedly Beethoven's sonatas for piano & cello are one of the most profound sonatas ever composed. Their influence in the cello literature is still relevant in today's professional music world and they are continuously being enjoyed by millions of friends of music and artists throughout the world.

This practice- based research aims to explore on how i can practice in an effective manner the 4th Beethoven cello sonata under the scope of deliberate practice theory and its strategies and try to answer as well what parameters the modern cellist should be aware of while employing these effective practice tactics, what is the importance of the sonata in the development of the cello and which effective and deliberate practice strategies we can use in order to effectively practice Beethoven's 4th cello sonata and navigate through the complete sonata's circle.

Utilizing deliberate and effective practice strategies alongside with the reflection of my *A) cello lessons and masterclasses , B) own practice and reflection and C) playing together with my accompanist* i wanted to shed light on how i can practice this sonata more effectively and in consequence , on how can i use these strategies in order *I) to enrich my own artistic performance ,II) teaching skills , III) practice Skills and IV) implementation of these methods to rest of the Beethoven cello sonatas.*

The main findings and outcomes of this study can contribute to a broad understanding of the deliberate and effective practice strategies that can be used in order to master the Beethoven's 4th cello sonata, to enhance my personal artistic performance of the piece, on strengthening and solidifying my own teaching methods, to contribute as a valuable study on the cello literature and research and by the implementation of the identified deliberate and effective practice strategies across the cello repertoire.

Overall this research has the potential to impact the understanding of Beethoven's cello sonatas and the 4th cello sonata in particular and majorly contribute to the practice, performance and teaching of this cornerstone of the cello repertoire.

Keywords: Beethoven, Cello Sonata, Effective practice, Deliberate Practice strategies, Performance, Reflection, Cello technique

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I am really thankful to my main subject teacher Jan Ype-Nota for accepting me in his cello class in Prins Claus Conservatoire and giving me the opportunity to discover aspects of myself and my artistry that I could not do without him. Our lessons and his mentorship the past two years shaped me into a more complete Human, Cellist and Artist.

I want to thank Professor Michel Strauss for his masterclasses on Beethoven 4th cello sonata and his valuable insights and information that helped me conduct this research.

A big thank you, to my teachers and mentors over the course of my master studies that guided me through this process.

And last but not least I am really grateful for all my friends and colleagues that i met over the course of my studies and shared with me their dreams, hopes and granted me their friendship in life and music.

## Introduction

### 1. Deliberate practice: Towards more effective development of musicianship

#### 1.1 Background and motivation of the research

The enigmatic yet energized character of Beethoven's 4th cello sonata ( Op.102.nr.1) comes in a mature period of the composer's life and serves as a connecting ring between the cello music of the classic period to the upcoming romantic era. The first step happened with the 3rd cello sonata (op.64) and the new developments on the cello but with the number 4 & 5 sonatas ( Op.102 Nr.1 & 2) this ongoing musical change solidify the cello as a main instrument, worthy of respect and brought a boom of inspiration in future composers to explore the phasm and the unparalleled beauty of the

cello. Therefore, the importance of the 4th cello sonata, besides its beauty and worth as a composition lies, the eagerness for me to further explore this masterpiece under the scope of deliberate and effective practice.

One of the most challenging aspects of musicianship is to practice effectively. Musicians and sometimes even professional musicians have the tendency to forget that also we have to practice “Practice”. By practicing with no specific goals or too fast or just repeating with no end our pieces we unconsciously reinforce many negative habits that may create serious problems, such as technical problems or lack of development in our instrument and repertoire.

As a professional cellist i had the luck and the opportunity to study in higher education musical institutions that helped me a lot with the ways that i am practicing and how to use Deliberate Practice( DP <sup>1</sup>)<sup>2</sup> for my own benefit. An explanation of what deliberate practice is will be further explored in the chapters below, but a brief definition of it in order to shed some light on it, would be the use of *individualized strategies and techniques with the goal to improve specific aspects and elements*, as described from Ericsson and Leeman in their book, *Expert and Exceptional performance: Evidence of Maximal adaptation to task Constraints* ( p.278-279,1996) . In my case the emphasis lies in the *performance of the Beethoven 4th Cello sonata* . Before my formal education started I was also struggling with the ways I was practicing and that led me to develop many bad technical habits that took me a long time to get rid of. These bad habits also transferred in my repertoire and somehow stunned in a way my development as a cellist in my pupil years.

As this research project deals with Beethoven 4th cello sonata and how i can effectively practice it, it is relevant to reflect on how i used to practice this piece ( and the rest of the Beethoven cello sonatas). The main reasons i choose to focus my research thesis on this particular sonata was a) the importance of the of the 4th Beethoven cello sonata

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<sup>1</sup> Passaroto: Deliberate practice in music: Development and psychometric validation of a standardized measurement instrument

<sup>2</sup> For an analytical definition see 1.2

in the cello repertoire, b) The connection it has with the 5th Cello sonata as they are sharing a chronologically and artistic connection as part of the same opus ( opus.102), c) the personal value that has for me as a performance piece ( for concerts) and teaching material ( teaching pupils) and d) as a guide on how i can apply similar deliberate practice strategies in the rest of the sonatas as they share many common musical difficulties and motifs. Beethoven's 4th cello sonata was ideal for a practice based-research due the real difficulty of the Sonata doesn't lay in virtuosic passages and complex technically musical lines but focusing mostly on a plethora of musical ideas, colors and a deep essence of music.

My relationship with this sonata circle starts from a very young age. In previous endeavors to perform and practice the Beethoven Cello sonatas and in our case the 4th one, many times was accompanied with struggles in a technical and musical level.

These struggles many times led to discouragement due to things that didn't sound like I wanted and the performance did not meet the expectations and my powers as an artist. Now I am aware that these struggles came from my lack of experience with deliberate and effective practice.

To name a few examples of these practice mistakes, I was practicing with no specific goals in my mind, repeating the piece mindlessly all over again while reinforcing bad habits, getting distracted too easily to external factors and working unfocused for a long period of my practice sessions. Another practice mistake was that I was working with long musical lines of high difficulty without trying to fragment them into smaller and more manageable musical lines.

By growing as a musician and be taught by excellent educators in higher education musical institutions alongside with increasing workload, concerts and less time to prepare for lessons or performances as i entered the "real" professional music world was very clear to me that i had to practice "practice" if i wanted to optimal grow as an artist and take advantage of my opportunities that were presented in the professional and higher education environment. It was a clear indication for me that i had to learn how to deliberate practice, with specific goals in a limited timeline. So this research project was an excellent opportunity to showcase these methods while using Beethoven



4th Cello sonata as a guide and taking into account the benefits that this can provide on a personal and professional level ( as performer & teacher) .

## 1.2 Definition of Deliberate practice and strategies

One of the main goals of this research project is to discover and explore how we can practice the Beethoven 4th cello sonata effectively (DP) and by consequence to continue this application of effective practice to the rest of the Cello sonata's circle.

A fitting start would be, by defining first of all the term Deliberate practice in order to comprehend the meaning of it.

So what is deliberate practice?

Psychologist Anders Ericsson in his book, *Expert and Exceptional performance: Evidence of Maximal adaptation to task Constraints* ( p.278-279,1996) defines deliberate practice (DP) as “ *the individualized training activities specially designed by a coach or teacher to improve specific aspects of an individual's performance through repetition and successive refinement* ”<sup>3</sup>.

Of course a definition of DP can be really helpful in order to put up a right basis for the further exploration of the concept and i will present in this subchapter examples and ways of deliberate practice of how and where it can help me in order to achieve my artistic and personal goals.

David Benders in his research on *Approach to effective practice strategies in music* (2013)<sup>4</sup> mentions that research suggests <sup>5</sup> that “*successful musicians are maximizing their practice time to be more productive compared to watching the clock and practicing long hours*”.

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<sup>3</sup> Ericsson & Lehmann, 1996, pp. 278–279).

<sup>4</sup> David Benders, *Approach to effective practice strategies in music* (2013)

<sup>5</sup> Pitts, Davidson, & McPherson, 2000, as cited in Christensen, 2010

This aspect of effective practice comes in contrast of how many teachers or students practice daily as just time served and work just by the clock as research evidence provide <sup>6</sup>. That leads to the conclusion that teachers as well and not just students should consider practice “ Practice” and embed deliberate and effective practice methods into the daily routine.

### 1.3 The four stages of practicing, Deliberate practice methods and strategies

Katie Zhukov in her research<sup>7</sup> present us with the four big stages of practicing <sup>8</sup>.

These four big stages are

- a) *the ‘big picture’ overview of the work*
- b) *technical practice that includes overcoming problems*
- c) *achieving automation and memorisation*
- d) *polishing the piece up for a performance; and finally maintenance of the piece.*

By identifying these four stages in the practice session, i can shift and orient my short and mid term goals according to my technical and musical needs , in order to effectively and deliberately practice with success the sonata.

Deliberate ( DP) and effective practice consists of multiple learning and practice strategies that can be used in order to achieve the setted artistic goals. These practice strategies are presented and identified in Katie’s Zhukov research<sup>9</sup>(p.6) ,Edoardo

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<sup>6</sup> See footnote number 3

<sup>7</sup> Katie Zhukov: Effective practicing, a research perspective, p. 1 ( What is Practicing?), university of Queensland ( 2009)

<sup>8</sup> Chaffin, Imreh, and Crawford (2002), Practicing Perfection: Memory and Piano performance

<sup>9</sup> Katie Zhukov: Effective practicing, a research perspective, p.6 ( What is Practicing?), university of Queensland ( 2009)

Passarotos<sup>10</sup> article about Deliberate practice and David Benders, Approach to effective practice strategies in music<sup>11</sup> ( p.47)

Many experienced musicians, professionals or high level students would identify multiple of these practice strategies.

Such strategies are:

- a) *Practice in slow tempo while gradually increasing the speed*
- b) *Using metronome and clear tempo indication mediums*
- c) *Silent practice*
- d) *Identify troubling spots*
- e) *Harmonically and morphological analysis of the music*<sup>12</sup>

Other practice strategies as identified and presented from Zhukov, Passaroto and Benders researches are:

- i) *Repetition of difficult passages and break them into smaller fragments* <sup>1314</sup>
- ii) *Mental Rehearsal ( cognitive or imaginary rehearsal of a physical skill without overt muscular movement*<sup>15</sup>)
- iii) *Meditation ( with proper body movement over the instrument and breathing while practicing or performing)*<sup>16</sup>
- iv) *Putting alarms when focusing on specific fragments or problem ( 10-15 minutes per problem)*

By identifying and being aware of the practice strategies above i was able to deploy multiple of them in order to achieve my artistic goals and surpass many of the challenges that i faced while practicing the sonata. Many of these practice strategies

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<sup>10</sup> Edoardo Passaroto, Deliberate practice in music: Development and psychometric validation of a standardized measurement instrument (2022)

<sup>11</sup> David Benders, Approach to effective practice strategies in music ( p.47, 2013)

<sup>12</sup> Barry & Pace (1992)

<sup>13</sup> Tannhauser (1999)

<sup>14</sup> Gruson (1988)

<sup>15</sup> Connolly & Williamson, 2004, p. 224

<sup>16</sup> Bruser ( 1997)

can be used one at the time or we can use a variety of them in the same practice session.

In order to use the above strategies successfully it is really important for the musician to set his personal practice goals and to have the time for self-reflection.

David Bender<sup>17</sup> Research gives us a clear example on how we should proceed.

- a) Goals ( is really important to have clear goals and expectations)
- b) Use the proper effective strategies
- c) Self- evaluation and reflection
- d) Problem solving and scaffolding the solution
- e) Teacher or colleagues feedback <sup>18</sup>

In my efforts to shed some light to the essence of deliberate practice and discover effective strategies for advancing more successfully and swiftly in my practice sessions and musical pursuits, I could use a variety of the aforementioned methods and strategies. This diverse approach helped me pinpoint specific musical and technical challenges and address my individual needs, contributing to improved performances and a faster development as a musician. Naturally, I can apply all these practice techniques when working also with other demanding compositions like the rest of Beethoven's cello sonatas, as well with the fourth cello sonata ( op.102.nr.1).

## 2. Literature review

Although Beethoven's work and life has been celebrated and studied in depth for many decades, most of the existing bibliography is focusing on biographical, historical and

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<sup>17</sup>Approach to Effective Practice Strategies in Music, David Benders (2013)

<sup>18</sup> Johnson, D., (2009, March) More than just minutes: using practice charts as tools for learning, Music Educators Journal, Vol. 95, No. 3, 63-70

aesthetical context. In spite of the fact that the Beethoven cello sonatas are being performed publicly continuously for centuries there is not a great number of publications focusing on Beethoven cello sonatas from a musical and an effective practice scope.

Even though it has been attempted a more general approach in academic articles and research<sup>19</sup>.

From the existing bibliography concerning Beethoven's 5 cello sonatas a core source that offers a spherical, historical, musical and a high level musical analysis is Larry Todd's and Marc Moskowitz, *Beethoven's Cello: Five revolutionary sonatas and their world* (2017)<sup>20</sup>.

The authors explore in depth the five cello sonatas and offer a book that explores a multitude of issues, from historical details, harmonical analysis and the impact that the musical choices of Beethoven had in the development of the cello. From this core source i got vital information for the historical and analytical context of the 4th cello sonata and it became clear to me the importance of studying these sonatas and their role in the development of the cello.

Furthermore the academic articles of Katie Zhukov: *Effective practicing, a research perspective* (2009), David Benders, *Approach to effective practice strategies in music* (2013), Edoardo Passaroto, *Deliberate practice in music: Development and psychometric validation of a standardized measurement instrument* (2022) and Benjamin Aldren, *How can one practice in an effective manner and in a way that will cultivate improvement and enjoyment in one's work* (2019), provided me with a theoretical background concerning effective practice and deliberate practice strategies that i used in my occupation with Beethoven's 4th cello sonata.

These articles are focusing not only on the exploration and development of DP strategies in musicians but also the implications of these strategies that have in the musical development of young students and pupils and how music educators can use them for the benefit of their pupils. For this reason i found these articles extremely

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<sup>19</sup> Yun M.Y (2013) *A new vision for the genre: The Five cello sonatas of L.V Beethoven and the striving towards instrumental equality*

<sup>20</sup> *Beethoven's Cello: Five revolutionary sonatas and their world* (2017) ISBN-13:9781783272372

important since one of the main aims of this research is to use this knowledge for my teaching endeavors.

Therefore the combination of the literature, academic articles and my practical engagement with Beethoven 4th Cello sonata, offered me a unique perspective as a researcher and as a performer.

### 3. Research question

For the reasons exposed before, exploring and analyzing, effective and deliberate practice strategies while interacting and performing, one of the cornerstone's of cello repertoire , Beethoven's 4th cello sonata had a significant impact in my artistic and professional career and proved a big influence over the course of my master studies and on my development as a cellist.

I originally formulate the following main research question:

- How can we practice Beethoven's cello sonata no.4 ( Op.102.no 1) more effectively?

Over the course of my Master studies, i realized the following sub-questions:

- What technical and musical parameters should the cellist be aware of?
- What is the importance of the sonata in the development of the cello?

And by my interaction with the DP theory the following sub-question emerged:

- Which effective and deliberate practice strategies can we use in order to effectively practice Beethoven's 4th cello sonata and navigate through the complete sonata's circle?

These questions provided me with a clear course of action and gave me a clear path on how to proceed this research. With these questions i wanted not only to focus on deliberate and effective practice strategies and how to practice the sonata more effectively but also dig into the technical and musical parameters of the piece and the importance of the sonata in the cello repertoire and history. By formulating these questions i wanted to have a unique and multi- layered approach with this masterpiece.

## 4. Methodology

### 4.1 Research Design

The main aim of this research is to discover, on how i could practice Beethoven's 4th cello sonata more effectively under the direction of effective and deliberate practice research, while i maintain the main goal that is to enhance the performance of the sonata for my

a) own performances and artistic benefit b) teaching and c) the use of these strategies for the further development as an artist , with my occupation with the rest of Beethoven cello sonatas cycle .

Therefore this research report is an *artistic,practice based research*.

As a reflective-practitioner and professionally active cellist i implement actions in order to obtain knowledge and understanding of the sonata while i stabilized my own practice methods with a theoretical background ( deliberate practice theory) .The way i achieved this was by, mostly reflect on musical, technical and performance elements from my I) lessons, II) masterclasses, III) playing together with the accompanist and IV) own Practice and the V) data i acquired from books and research articles concerning DP theory and theoretical analysis of the sonata.

Besides the main framework and scope of practice-based research and that of deliberate practice theory, i found it extremely important for the development and the better understanding of the sonata to have an analytical and historical context background as well. For that reason even if this research is not focused on historical or in music theory elements, i proceed to a full *harmonic and morphologic ( Theoretical)* analysis of the sonata and I tried to see Beethoven's Cello sonatas also in their *historical* context and what was the world that they got created.

The reason I proceed to this action even if it is not immediately applicable for this research report, was for a better understanding of the musical elements that are so important in Beethoven's 4th Cello sonata and to round up my knowledge in every parameter concerning this piece.

By adding these elements in my study i could practice the piece in more detail and by using the tools that DP theory provides alongside with the analysis of the Sonata, i could achieve my main aim, which is of course an effective way of practicing Beethoven's 4th cello sonata.

## 4.2 Data Collection



In order to proceed with the research report it was important to effectively categorize and classify my various sources of data.

My collection and analysis of my data was a long ongoing process that was separated into multiple collection and study cycles that emerged according to my needs as a performer and a researcher of this particular topic. These multiple collection and study cycles gave me the mental space to reflect on a series of important elements ( artistic, effective practice and performance components) and gave me a clear view of the process.

The sources of the data that supporting my Musicological/ analytical and DP theory process were

- Reading and reflect on written sources that are based on the historical and musicological factors of Beethoven's cello sonatas
- Analysis of the music, form and harmony from my own analytical expertise and written sources concerning this factor
- Reflection from masterclasses and lessons
- Reflect and analyze on how various articles and researches supported my practice and data i had produced in my practice

The sources of data that consist the practice-based and reflective practitioner element of my research were

- The reflection and analysis of my cello lessons
- The reflection on the masterclasses that i participated and i viewed
- The reflection on the rehearsals with my accompanist
- The implementation of DP strategies in my own personal practice

The main volume of my data from these categories was collected in my personal data log journal, my day-to-day practice journal and Music scores.

In this way I could easily access them and extract valuable input and information.

By revisiting these data entries I was able to connect various elements from the different sources and find a common ground that helped me with the effective practice and the performance of Beethoven's 4th cello sonata.

As my data collection is diverse and happens in different study and collection circles it is important for deeper and clearer understanding to present the *I) Main data, II) the activities that accompany them and the III) Time period* these circles happen in a table of data as presented below.

*Table of Data*

<i>The Main Data</i>	<i>Activities</i>	<i>Time Period</i>
Cello lessons	2 Lessons per Month with focus on Performance, Technique, problem solving and practice ( Jan- Ype Nota, Main subject teacher)	1)September 2021-February 2022 2)April 2023- May 2023 3)October 2023- January 2024 ( Final goal, Performance of the Sonata in my Master's Final recital
Masterclasses ( Live and Online)	1) Observation and gathering of Data concerning Beethoven Cello sonata nr.4 ( online, Benjamin Zander) 2) Active participation on Performance and practice of Beethoven 4th Cello sonata ( Michel Strauss)	1) November 2021- Online Masterclass 2) 16 February 2022- Active participant Masterclass 3) 24 April 2023- Active participant Masterclass

	3) Active Participation on Performance and Practice of Beethoven 4th and 5th Cello sonata Michel Strauss)	
Rehearsals with Accompanist	Rehearsals with Pianist focus on performance, problem solving and playing together	1)October 2021- February 2022 ( 2 Rehearsals per month) 2) November 2023- January 2024 ( 2 Rehearsals per month with the goal of Performance in Master's final recital)
Personal Practice	Personal practice with focus on problem solving,practice and deliberate practice strategies	1) September 2021- February 2022 2) March 2022- June 2022 3) April 2023- May 2023 4) October 2023- January 2024 ( with the goal of performance on Master's Final recital)
Historical and theoretical data about the Sonata	1) Reading books and articles concerning the historical and theoretical framework 2) Harmonic Analysis for deeper understanding	November 2022-December 2022
Articles based on Deliberate and Effective Practice theory	Reading and analyzing articles with the focus on Effective and Deliberate practice theory with the goal of theoretical validation of my practice techniques and application	September 2023

### 4.3 Validity and feedback

In order to to maintain a foothold on the deliberate practice strategies and the data i acquired from my sources it was necessary for reasons of *validity and reliability* to seek

the advice and feedback of my main subject teacher Jan-Ype Nota concerning the subjects of my personal practice and performance and my research coaches about the validity of my data concerning the more theoretical sources such as the use of the deliberate practice theory strategies and the analytical/historical factors of the sonata.

With my main subject teacher we held conversations about the subject on an almost weekly basis that proved really beneficial for my own performance and occupation with this sonata. The deep knowledge and understanding of Beethoven cello sonatas and the technical and performance elements of them, from my professor Jan-Ype Nota proved a valuable milestone in my own development and kept me in check on the effective practice and performance front.

From this interaction I was able to grasp and reflect on what is working for me, what is not and offered me an organized way to deal with the Beethoven 4th cello sonata.

By sharing my musical, technical and practice ideas with an expert cellist like my professor allowed me to discard some of my past mistakes concerning this subject and helped me from the other hand solidify and continue to explore the ideas that were showing promise.

Another process that proved useful in my case was also the different study and collecting data cycles as I described in 4.1 & 4.2. This allowed me to interact with my source of data, teacher and my research coaches with a continuous fresh look of this sonata and helped me be more reflective in my own practice.

On the other hand, my research coaches present to me valuable external sources and provide me with a strong theoretical background in order to proceed with this research.

The guidance, direction and feedback that my coaches provided to me helped me extract valuable data for the creation of this practice-based research and proved really valuable in my own development in correlation on effective and deliberate practice strategies and the Performance of the Sonata. By acquiring and studying the recommended sources and bibliography from my research coaches, I consolidated my

practice methods in correlation with my cello performance and my interaction with the sonata and gained a strong theoretical foothold on the DP theory and strategies.

## 5. Analysis and Findings

With my engagement with my master research thesis I gathered, analyzed and worked with various sources and data.

Besides the written sources that i have encountered ( books & articles) that their main concern were ,a) Deliberate and effective practice strategies<sup>21</sup>as stated in Katie's Zhukov, David Bender's and Edoardo Passaroto's estimable researches and b) harmonical,historical and morphological information that i acquired from Marc Moskowitz and Larry Todd's 2017 book, Beethoven's Cello: Five revolutionary sonatas and their world , my main practical ( Cellistical) sources of data was from my c) Personal cello lessons and d) masterclasses, e) my own practice and reflections and by f) playing and working together with my accompanist.

In order to proceed with the general findings of these data and the correlation that they have in our research topic, it was important to me to analyze these three categories according to Deliberate practice strategies as described in Zhukov's, Bender's and Passaroto's researches and discover the consequences and similarities that they may have and how can i use these DP strategies in order to achieve my final goal, that is to i) Perform the piece in a high professional level, ii) gain insights in order to use them for teaching pupils and iii) the application of the DP strategies in the rest of the Beethoven Cello sonatas after my master studies and the rest of my professional career.

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<sup>21</sup> See introduction 1.2 &1.3

## 5.1 Lessons and masterclasses

One of the most important influxes of data and information that I gathered over the period of my master studies (Sept 2021-January 2023) was from my Cello lessons ( Weekly base<sup>22</sup>) and masterclasses ( Online and as an active member,Jan. 2022 & April 2023) .

By analyzing my data from this component I came across patterns that are an intersection between my cello lessons and the masterclasses that I followed as an active member or audience ( online) .

For reasons of clarity and understanding I will show these main points as a list with the meaning and significance of them alongside with comments.

### 5.1a The Importance of starting with proper tempo

Lewis Carroll<sup>23</sup> the author of the popular novel Alice in Wonderland wrote “Begin at the beginning” .This phrase applies also to Beethoven's 4th Cello sonata. One of the most crucial aspects of playing Beethoven's 4th cello sonata is the use of the appropriate tempo. The sonata opens with the enigmatic solo Cello phrase.



<sup>22</sup> Cello lessons on weekly base and working on Beethoven 4th Cello sonata approx. 2 weeks per month in the period Sept 2021- Feb 2022 and November- January 2023 ( as part of My final exam Recital Presentation)

<sup>23</sup> Lewis Carroll, Author of Alice in the Wonderland ( 1865)

<sup>24</sup> Beethoven, L.V Sonatas Für Pianoforte und Violoncell, Nr.108 (pp.95-110),Breitkopf & Härtel, Leipzig,1864, Bar 1-3, 1st movement

Is really important to respect the sonata's tempo indication while we explore this beautiful opening musical line. The key element to that is to avoid the danger of dragging out the tempo or to start hastily. The appropriate tempo in the beginning of the sonata will set the general direction of the piece and will help us with the performance and phrasing.

A DP strategy that I used for this opening theme in correlation with the use of the appropriate tempo was a) Scaffolding as David Benders suggests in his research on the approach of effective practice (2013) and continuing the exploration of the musical phrase in my lessons together with my teacher and on my practice time. The way I used scaffolding was by working with my professor in this musical phrase. My professor instructed me and showed me the right amount of flow and movement I needed in the right hand (bow technique) and by using the metronome. By practicing these elements later in my personal practice time I was able to achieve this musical flow over time. The next step as my professor advised me was by taking the tempo by the sixteenth notes in the second bar of the phrase. The sixteen notes is a clear indication of the direction the music should follow. When I started using the sixteen notes as a guide the need of the metronome vanished and I was able to start with the right tempo, in any performance or practice occasion. Another strategy that is really important especially in the second big stage of practicing as identified from Chaffin, Imreh and Crawford (2002) in Katie's Zhukov research about deliberate practice is the b) use of metronome, especially when I started practicing the sonata and c) the fragmentation of the musical phrase until the desirable result and the pulse of the tempo is embodied with our own pulse.

In my private cello lessons in contrast with my personal practice I avoided the use of metronomes but in the private cello lessons I had another very important element that is the external monitoring (in my case my cello professor). This external monitoring can be identified with Johnson's (2009) effective practices as

the instructor feedback as is shown in David Bender's research about the approach to effective practice in music.

Is it clear that often different deliberate practice strategies can be mixed and used together, in the same practice sessions or lessons in order to achieve the desirable goal.

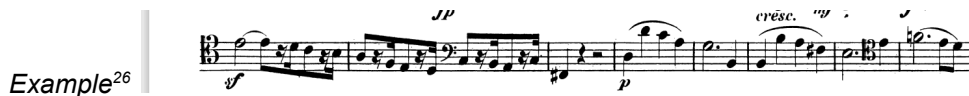
### 5.1b The different masks of Character and emotions

Beethoven cello sonatas and in my case the 4th cello sonata have a multitude of different characters and emotions that the performer is required to deliver in the audience and master for the sake of his/her own development as a performer. The character and emotional complexity of the sonata is apparel. The performer/student/teacher has to completely immerse into this emotional complexity with lyrical elegiac phrases as in the beginning of the sonata

Example.<sup>25</sup>



Following later on, fast outbursts of rage and musical intensity.



In my experience as a performer and student with this piece, this was one of the most challenging aspects of practicing and performing this sonata. Without any

<sup>25</sup> Beethoven, L.V Sonatas Für Pianoforte und Violoncell, Nr.108 (pp.95-110), Breitkopf & Härtel, Leipzig, 1864, bar 1-3, 1st movement, Andante

<sup>26</sup> Beethoven, L.V Sonatas Für Pianoforte und Violoncell, Nr.108 (pp.95-110), Breitkopf & Härtel, Leipzig, 1864, bar 10-17, 1st movement, Allegro Vivace



doubt trying to put yourself into the idiosyncrasy of Beethoven's artistic genius is a hard task.

For multiple weeks of lessons with my respected professors, i was trying to acquire these masks of the different characters. The way i did it was by using a multitude of deliberate practice strategies as suggested by Katie Zhukov, David Bender, Edoardo Passaroto and of course the teaching and performance expertise of my professors.

*Example<sup>27</sup>: Tempo d' Andante, Bar 10.*



*From my reflective journal:*

*Totally different character with the adagio. Suddenly Beethoven in the same movement led us in a totally different musical character.*

*This "Movement" should be in flow with a more careless character and not dragging of tempo. It should have a really sweet dolce character with the strongest dynamic to be a rough MF( Mezzoforte) in the C on bar 12.*

I used strategies such as e.g. a) Fragmentation of the piece b) setting clear goals for the lessons, c) Problem identification and solving, d) Music analysis e) Meditation-breathing and f) decompose complicated musical elements into simpler more manageable tasks in order to save time and complete more complicated tasks in shorter time.

*From my reflective journal:*

<sup>27</sup> Beethoven, L.V Sonatas Für Pianoforte und Violoncell, Nr.108 (pp.95-110), Breitkopf & Härtel, Leipzig, 1864, bar 10, 2nd movement, tempo d'andante



Deliberate practice with awareness and breaking the lines into smaller fragments ( Gruson 1988) as presented in Zhukov's research about deliberate practice with the goal of achieving this can be really beneficial.

#### *5.1d Acquired cello techniques: Implications in practicing and performing the Op.102, No.1 sonata*

A very important technical aspect that can help, attribute the music of Beethoven with great mastery and respect is the conscious use of right and left hand technique. Cello technique of course is a broad subject but nevertheless a valuable tool at the cellist's disposal if someone is seeking mastery and easiness in the playing no matter the chosen repertoire.

Identifying the practice stages is crucial for exploring and developing various cello techniques with the use of Beethoven's 4th cello Sonata, outside of formal lessons or practice room sessions. Is it clear by Katie's Zhukov research that the suitable time to explore these parameters would be the second stage of practicing as identified by Chaffin, Imreh & Crawford ( 2002). The second stage of practicing is the identification and the resolving of the technical problems that they may occur while practicing the sonata<sup>30</sup>. Having this in mind, i am able to proceed and share what kind of cello techniques i faced and used in the Beethoven 4th cello sonata.

A very important right hand ( bow) technique cellists can use is what is called from string players and teachers the circular bow movement. To understand what circular movement is, it is important to first try it in open strings. Circular movement happens when the natural movement of the right hand and the bow together with the support of the elbow that is placed a bit higher creates a circular effect that keeps and connects the musical lines and sound quality.

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<sup>30</sup> See chapter 2.2.1

Another way to practice the right hand ( bow) circular movement besides in the cello or in the sonata would be to mentally practice it , in connection with DP strategy as Connolly & Williamson suggests in Zhukov's research. The way to do it would be to imitate the movement with just the right hand ( or the bow), in order to gain flexibility and take a grasp on the movement.

This right hand- bow technique can help with the creation of a more unified and richer musical lines especially in the slow movements (Andante-1st mov., Adagio & tempo di andante-2nd mov.).

Another example is the right pronation of the bow. We deal with a sonata with extreme characters so the right pronation of the bow especially in Attacca or Sf moments can be proven crucial. In order to achieve good pronation of the bow we need flexibility in the fingers that follow the natural movement of the bow ( turning naturally the right hand fingers in the left in up bows V and right in downbows П).

An important factor of this is the flexibility and the right positioning of the pinky finger in the right hand. It can be really helpful by lifting it or putting it more up in the bow. For an advanced student/ professional cellist it should not be a very challenging technique to be aware of and master and the benefits would be great not only for Beethoven cello sonatas but also for the rest of the repertoire.

String crossing is also an important technical factor. In my lessons/masterclasses I got the advice that string crossing should come naturally from the circular bowing that we mentioned before and the synergy of muscles of the shoulder blade.

For better intonation it helped me a lot to practice while I concentrated on the right placement of the left hand. Left hand placement in the cello as a source of good intonation is a basic element that we can always return to. Again the right pronation and placement of the left hand fingers should follow the natural inclination ( like holding a cup<sup>31</sup>) .

These simple techniques-exercises can help raise the overall playing level and make it easier to immerse ourselves into the Sonata. By using these exercises-techniques

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<sup>31</sup> Basic left hand technique that teachers and students use since the early stages of learning an instrument

proved a really beneficial asset for my overall development as a musician , not only with performing the sonata but also with the rest of my repertoire. By having these technical tools and exercises in my disposal was of major importance. In my professional and musical development i was often struggling from technical challenges and practicing Beethoven 4th cello sonata was not an exemption. By developing and identifying these exercises-techniques i was able to raise my performance level and make my body and arms work in a more balanced way. When practicing long hours it is important to be able to achieve this body-arms movement balance, in order to avoid muscular pain and injuries.

## 5.2 Personal practice and reflection

Personal practice, if accompanied with deliberate and conscious practice strategies like described in the introduction of this thesis, can provide great insights and reflections.

*From my reflective journal :*

*“The Character has to be contained in neither heavy or soft manner”*

*“It is Important the string crossing to come from the elbow in order to gain comfort, fitting sound quality and avoid disturbance of the musical line”*

At the same time, it is the right place and time to put in action the input from the cello lessons and reflect on the shared knowledge that i acquired from the professors and

teachers in order to comprehend what is working and what is not and deal with technical and musical difficulties.

In this environment is where the basis of deliberate and effective practice starts and where the real musical and technical progress begins.

*From my reflective journal :*

*Adagio 2nd mov.*

*"Is really important to start the adagio with a Piano Dolce sound that resembles the teneramente of the first movement. The first note ( G ) should be presented with Graceful character and lead us into the Adagio and the decorative thirty second notes".*

In this subchapter we will try to analyze like before the patterns and reflections of this subject, in the form of a list with personal comments for easier understanding.

### *5.2a The space to explore deliberate practice and focus on specific problems*

As I described in the introduction of this subchapter( 5.2) personal practice sessions are the place and time that we can focus on specific problems and challenges. Besides that is where we can try new things, discover new patterns and put in action the advice of our teachers and check for ourselves what can be really beneficial or doesn't work so well.

My personal practice was for me the most important part of the progress I made concerning not only the 4th Beethoven cello sonata but the rest of my repertoire as well.

It was a space where I used many of the deliberate practice strategies such as I) *Fragmentation of musical line* and II) *re-introduction of them in the main corpus of the piece*, III) *Use of metronome*, IV) *Clapping and solfeging the rhythms* V) *Repetition*, VI) *practicing in slow tempo* , and VII) *Reflection and feedback* just to name a few.

The goal was to effectively practice the sonata in order to be able to perform it in the level I was intended to and gain important insights so I would be able to transfer this acquired knowledge to my future students.

In this practice sessions that are a daily routine for the most of us in the professional music world i solved many of the sonata problems that i faced such as *i)* Intonation and wrong notes, *ii)* the different tempi and characters of the piece, *iii)* the intense colors of the music and of course many of the *iv)* basic cello techniques ( see, 5.1d) that we need to master or at least to be aware of them in order to bring the piece into the desired level.

The most meditative practice strategies like the *v)* mental rehearsal<sup>32</sup> I chose to do it in the comfort of my house or on the train where I was unable to produce sound but still a good opportunity to study the score and prepare mentally. Preparing mentally for the practice sessions or rehearsals can be really beneficial especially when there is not enough time to study a piece. It provides a cognitive knowledge of the score in a more practical way and it can help anticipate the sudden changes and different characters of the Sonata.

### *5.2b Strategies i used and helped my progress*

Like every Sonata of Beethoven for cello and piano, the 4th one is a multilayered piece with various technical and musical difficulties. Unfortunately for us there is not a single practice recipe that can help us and solve all our problems that we may face in the piece.

In the subchapter 1.3 of my introduction i adduced the four big stages of practicing<sup>33</sup>. Depending on the stage I was at, I found a combination of deliberate practice strategies that really helped me learn the piece in depth and be able to perform it.

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<sup>32</sup> See footnote nr.13

<sup>33</sup> Katie Zhukov: Effective practicing, a research perspective ( 2009, university of Queensland)

When I was in the first stage of a big overview of the sonata, it helped me significantly to i) mental practice the sonata with the musical sheet and listen to a lot of different recordings. Listening to the Sonata from various big artists can provide a general idea and be inspired by the immense beauty and power of the piece. After getting a hold of the general idea of the piece while, still in the first big stage of practicing, it is really important together with the sheet music ii) to analyze the piece both harmonically and its form ( Morphologically)<sup>34</sup> . This will allow an ease and a direction especially when we start practicing the sonata together with the pianist and will help later on with the automation when performing.

In the second big stage of practicing the piece is where the real work starts and where the foundation is laid in order to build later on the artistic and musical ideas of the sonata. In this stage it is advisable to focus on the technical practice and start solving the technical problems in both the right and left hand.

Great deliberate practice techniques that we can employ in this stage is i) practicing really slow<sup>35</sup> and with awareness of intonation and bowing, ii) Using scaffolding for the main difficulties and weakest points<sup>36</sup> by following the examples and exercises that the main cello teacher provided, in the weekly cello lessons and try these methods in the private practice sessions where you can explore this independently and apply freely this new information in similar technical and musical difficulties that can appear later in the piece, iii) repetition of the piece and fragment the music in smaller, more manageable lines as Gruson (1988) suggests ( where we found challenges) and using iv) an alarm clock of 10-15 minutes per problem we face. Is really important in each day's practice not to focus more than this on a specific problem, due to the damage we can do because of boredom and losing our attention but also the volume of the work that we may have to do with this sonata or the rest of our repertoire.

A small piece of advice that my cello professor gave me and I also want to give back, concerning the 10-15 minute cycle is that each day we need to desire to practice and each day to be hungry and full of love for our instrument, the cello, in our case. Sometimes we have to take things slowly and methodically in order to progress faster.

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<sup>34</sup> See footnote 10

<sup>35</sup> Lehmann, Sloboda & Woody, 2007

<sup>36</sup> Approach to Effective Practice Strategies in Music, David Bender ( 2013)



The third big stage of practicing, the automation and memorization came for me naturally by following the two prior stages and by repeating the sonata with my accompanist and a playthrough at each end of a practice session. Is it really important for the automation process to have the ability to perform the sonata under a bit of a vigilant eye or in minor stressful situations ( like playing for a friend, or our teacher, as part of constructive feedback and evaluation<sup>37</sup>). For the memorization process, I didn't pay much attention as it is a sonata and is not really required from us to play by heart. Of course each student and musician is different and always there is the choice and preference for the performances. For me, I found it important to memorize small fragments of the sonata where lay some fast changes or turning pages.

The fourth stage of practicing, the maintenance and the polishing of the Sonata is when we are also really ready for important performances, exams etc.

For this stage I found it really helpful not to overdo it with daily practice but practicing the sonata a couple times a week in order to keep the agility of the left and right hand and the characters of the piece. For the maintenance of the piece it really helped me to practice it occasionally with my pianist and to have new input from teachers and masterclasses. This stage is where we are really comfortable to perform it for multiple occasions and try new things, like fingerings, bowings and really polish the dynamics of the sonata.

Still in the last stage of practicing is it wise to be aware and concentrated when re-establishing old and new details in order to avoid bad habits and possible damage. That's why it is important to set new goals when it is time to perform and always reflect on our performances and feedback.

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<sup>37</sup> Johnson (2009) as presented to Approach to Effective Practice Strategies in Music ,David Benders

### 5.2c *What did I do wrong and what didn't work out for me?*

Personal practice time as I described in the subchapters above is the right place to try new strategies, music and techniques and reflect on your progress. Unfortunately can also be the place that can stunt your progress and your overall development as a musician if done wrong. So is of the most importance besides practice effectively to practice also right (!) .

In all my musical education over the years there were periods that I was also struggling with effective practicing and I was ending up doing more damage than good in my development. I am sure many of my colleagues and fellow musicians also struggle from time to time from severe lack of motivation, concentration and end up practicing totally wrong and with no specific goal in mind.

While practicing Beethoven's 4th cello sonata there were also times in the research period ( November-December 2021, March-April 2023 ) that my development and the progress of the piece stopped as I reached a small wall because of some of my wrong practice habits. In the first period ( November-December 2021) as a new master student i was not aware of many of the deliberate practice strategies that later on i acquired and i was practicing in a more aimless, repetitive and non reflective manner. In the second period ( March-April 2023) again these problems that i faced in the first period came back and affected not only my work with Beethoven 4th cello sonata but the rest of my practicing repertoire as well.

David Bender's research in page 46 claims as paraphrased from Christensen (2010) that ,*"Research evidence shows clearly that successful musicians' are maximizing their practice time to be more productive compared to watching the clock and practicing long hours"*<sup>38</sup>. Unfortunately many of us can fall into this trap/ bad practicing period.

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<sup>38</sup> Pitts, Davidson, & McPherson, 2000, as cited in Christensen, 2010). Approach to Effective Practice Strategies in Music, David Benders ( p.46)

Of course a couple of weeks of bad practicing is no excuse not to set things right again. For that reason it is really important to identify on how and why practicing went wrong as part of monitoring while evaluating the practice sessions and the personal progress, as is clearly stated in David Bender's (p.46)<sup>39</sup> research. Subsequently after monitoring, it is possible to start again consciously setting up goals and strategies for the music that needs to be performed, in my case the sonata.

Also feedback from our teachers or a colleague as an external source of reflection can help us with this task and start practicing right again.

For me, concerning this subject, it helped me a lot, my weekly lessons, meditation (awareness and conscious choices) as part of DP strategy technique as stated from Bruser (1997) in Zhukov's (2009) article and organizing before every practice session my objectives of the day. This gave me a specific clarity and set me up again into deliberate practice of the sonata.

Other smaller aspects that didn't go as planned in my personal practice were some fingering and bowing suggestions that found me in disagreement and I could not take a grasp on them, but always concerning bowings and fingerings comes the personal choice of each individual as long as they are convincing musical and technical.

I really wanted this subchapter to present to the reader (especially if they are pupils or students) that things can also go wrong especially if there is emotional struggle or facing problems with the concentration levels due to circumstances and it is totally natural and normal to have periods like these in professional, music life. These periods can serve as benchmarks for future reflection and prompting a more deliberate and mindful consideration of each's objectives and goals.

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<sup>39</sup> Approach to Effective Practice Strategies in Music, David Bender, 2013 p.46 (Oare 2011) & p.47 (Johnson 2009)

### *5.2d A realization after pausing/ take a break from practicing the sonata and the impact on the practicing stages*

My interaction with the 4th Beethoven cello sonata was a long, insightful and reflective process that lasted almost the entirety of my Master studies . From this personal and in-depth interaction with the sonata, i always believed that is of major importance the use of mental and psychical brakes from the piece. Having breaks from practicing and interacting with a piece, in my case the 4th cello Beethoven sonata, helped me keep my artistic interest for the sonata intact over the long run and served as a time where i could reflect on specific musical and technical elements.

Although the importance of breaks is unparalleled and crucial for further development, i realized it comes with some negative effects as well.

On chapter 1.3 i apposed the four big stages of practicing as presented in Katie's Zhukov research on effective practicing and as she identified them from Chaffin, Imreh and Crawford's<sup>40</sup> research. When i was daily interacting with the sonata, after getting past the three first practice stages of practicing and solved many of the technical and musical problems that i encountered , i was in a position of maintaining and polishing the piece for my performances.

After a break period and the re-establishment of my practice sessions with the sonata, i realized that i was no longer in the last ( 4th) stage of practicing as Zhukov presents ( polishing and maintenance) but i went back to the second stage of practicing, that included overcoming technical and musical problems. I realized the need for technical

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<sup>40</sup> Chaffin, R., Imreh, G. & Crawford, M. (2002). Practicing perfection: Memory and piano performance. Mahwah, NJ: Erlbaum

practice in order to overcome some of the re-appeared problematic motifs and some newly emerged technical difficulties.

Another striking realization was, that even with these re-appeared problems, the third stage of practice as Katie Zhukov showcases in her research was not heavily affected by this break. I was able to maintain the biggest part of the automation and memorization in a big part of the sonata. It was extremely interesting to see that even with the re-emerge of technical difficulties and strenuous musical phrases and passages, my fingers on my left hand and my right hand bow still contained the memory and reflexes of the previous practice periods.

From that realization I concluded that breaks, however beneficial they may be, can lead to minor technical and musical setbacks that nevertheless can be overcome much easier through the existing automation as presented in Zhukov's third stage of practicing.

These minor setbacks proved a valuable lesson for me, as I used these difficulties to further develop the technical perpetuity of the sonata and raise the overall level of my performance.

### *5.2e Evaluation of my overall progress through the sonata and the lessons learned for the next Beethoven Cello sonatas*

In every project I am temporarily finishing (Beethoven cello sonatas for a professional cellist is always an ongoing artistic and teaching project) it is really important to reflect the learning process I had in the sonata, what DP strategies really helped me evolve, what I did wrong in the overall process and how I can make things more efficient in the future. A great way to reflect is also through my teachers', colleagues' feedback and the end result is the performance of the sonata in concerts, exams and in the teaching room.

Looking back at the past months, it was a period where I learned a lot of new things about effective practice and how to implement all these methods in the Beethoven 4th cello sonata. There were periods I was working systematically and with specific goals<sup>41</sup> in mind that really gave me a foothold in the piece but also periods of unmotivation and less progress. It is important to accept both phases and overcome the less productive practice periods.

Besides these ups and downs the overall experience was extremely positive and beneficial. I had the chance to perform the sonata on multiple occasions (concerts, masterclasses, exams), where I received extremely positive feedback and reviews from audience members, colleagues and teachers.

All these deliberate and effective practice methods and strategies I used in order to practice more effectively the 4th cello sonata of Beethoven have further appliance to the rest of my repertoire and the rest of Beethoven cello sonatas. These strategies are an important tool for every student and professional musician to use for their own benefit. The past months I have continued my exploration with Beethoven cello sonatas as part of my musical interest for this collection of works and I am planning to continue working with the five of them. After my work with the 4th cello sonata I had the desire to play and re-polish the 5th Cello sonata (Op.102.nr.2) and use the strategies we analyzed in this thesis. To my own surprise I managed to perform the piece in concerts and masterclasses with much less preparation and practice than the time I needed for the 4th sonata.

The lessons I learned for my current and future occupation with the Beethoven cello sonatas are, to identify the four big stages of practice as described in Zhukov's research about effective practice and use the appropriate Effective practice techniques accordingly to our needs, as Zhukov and Bender's report in their articles.

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<sup>41</sup> Approach to Effective Practice Strategies in Music, David Benders (2013) - The necessity of a goal oriented practice

When we get tired or we are not willing to practice with specific goals in mind, it is better to take a small distance for a couple of days from the piece, instead of repeating mindedly mistakes and re- introduce bad habits to our playing.

The goal is not to practice by the clock but to practice right and purposely as Bender's <sup>42</sup> on page 46 of his research cites Pitts, Davidson and Mcpherson.

In the future of my professional life, I am looking forward to continuing this work, in my personal practice time, concerts and to impart the knowledge i acquired to my current and future students.

### 5.3 Deliberate practice strategies while playing together

Playing together with your colleagues or having a skilled accompanist ( a pianist in our case for the Beethoven Cello sonata) is as important to the development of your musical ideas and your artistry as the individual cello lessons/ masterclasses and personal practice.

By playing together we have the opportunity to fully grasp the complete harmony and form of the sonata as it really helps us naturally to unravel the musical and emotional complexity of the piece. This can be really beneficial, especially in the third and forth practice stages as described by Zhukov's research and her presentation of the four practice stages. Moreover, it is important to start practicing with the accompanist even from the second stage of practicing while many elements of the piece are still fluid and it is possible to tackle many technical and musical challenges from the very beginning.

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<sup>42</sup> Approach to Effective Practice Strategies in Music, David Benders (2013), (Pitts, Davidson, & McPherson, 2000, as cited in Christensen, 2010) P.46

Example <sup>43</sup>

For me, personally, practicing together and performing the sonata in multiple occasions like concerts, masterclasses or exams, gave me a unique perspective and by consequence a great pleasure while performing it. This cello- piano relationship in the sonata helped me understand the piece as a whole and not as a single voice (violoncello) and I had to compromise many musical ideas for the sake of music and for the better connection with the pianist. An interesting information concerning the whole collection of Beethoven's cello sonatas lies in the front page, as are sonatas for *piano & cello* and not the opposite.

Again for reasons of clarity and understanding I will present the main points of this subchapter alongside with comments in a form of list, like the chapters above.

### 5.3a Tempo, direction and character when playing together

As I mentioned in chapter 5.1 a it is of crucial importance in order to have a satisfactory performance to start on a proper tempo and keep the direction and character of the music when playing together with the accompanist. The challenge to that lays on, that in a piece of approximately 15-16 minutes ( depends the performer) there are in the score, 5 different contrasting characters in only two movements as suggested in Moskvitz and

<sup>43</sup> We can see clearly the musical Union of the two instruments in the form of Character and dynamics, bar 1-5, 1st movement, Allegro Vivace, Beethoven, L.V Sonatas Für Pianoforte und Violoncell, Nr.108 (pp.95-110), Breitkopf & Härtel, Leipzig, 1864



Todd's book about Beethoven, *Five revolutionary sonatas*<sup>44</sup> (Andante, teneramente, Allegro Vivace, Tempo d'Andante & Allegro vivace). An appropriate effective deliberate practice strategy that can be used in order to achieve the appropriate tempo and direction is a) *by using a metronome*<sup>45</sup> as part of a learning strategy as presented by Zhukov's research and by b) *repeating* (Tannhauser, 1999) *and fragment musical phrases before each big character and tempo change* (Gruson, 1988). After the implementation of these learning strategies it is possible to re-insert the fragmented musical phrases inside the rest of the piece and connect the Sonata in this manner (Howard, 1982).

By doing that one can gain awareness of the sudden changes and be mentally and physically prepared for what is happening.

When I started practicing the sonata together with my pianist, these sudden changes often put me off tempo and made me confused. This led to a lot of frustration in the beginning but by deliberate practice with these strategies helped me gain a grasp on these changes and soon overcome them.

### 5.3b *The question-answer principle of the sonata while playing together*

The 4th cello sonata of Beethoven includes a motif that we can spot all over the sonata and in both movements. This motif is the question- answer musical phrase that is so prominent in this piece. The outlet of this usually starts with a musical question from the cello and the piano answers with an identical line in different tonality or tempi. In my

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<sup>44</sup> Beethoven's Cello: Five Revolutionary Sonatas and Their World, Marc Moskowitz & Larry Todd, ISBN-10 : 1783272376

<sup>45</sup> Katie Zhukov: Effective practicing, a research perspective (2009, university of Queensland) & Passaroto: Deliberate practice in music: Development and psychometric validation of a standardized measurement instrument

personal experience I found it a challenging musical aspect when playing together with the accompanist. The reason for this is that first as a cellist I have to ask the right question in order for the pianist to give me a good answer. What I mean with that, is that these musical motifs should be very precise with the tempo, intonation and with the appropriate character and “mask” that we use in each phrase. These musical phrases should also be shown to the pianist also throughout our body movement to help our colleague understand our intentions and to reply to our gestures. Another aspect of these lines is that they help us build a harmonious performance and make the two instruments beautifully blend with each other.

When practice together with the accompanist, besides the good preparation that needs to be done before in our practice sessions is to fragment these musical motifs<sup>46</sup> as a DP strategy as Gruson ( 1988) suggests in Katie’s Zhukov research about deliberate practice.

It is important together with the pianist to work deliberately on the right phrasing and movement of the musical line and bodies. An other connecting effective practice technique that we can use is the right breathing<sup>47</sup>. The right breathing will help us connect with the music and offer us also clarity and peace while performing. We can practice the right breathing not only while playing together with our accompanist but in the privacy of our home as part of a mental rehearsal as a deliberate practice strategy as suggested from Bruser (1997). Research from Rosenthal (1988) and Pace ( 1992) shows that *mental rehearsal is an effective means of learning* as presented in Katie’s Zhukov research on effective practicing.

So by using these DP strategies the question-answer motif in the 4th Beethoven Cello sonata can be solved and offer a higher level of communication with the accompanist. These principles can be further used to the rest of the Beethoven sonatas where these motifs appear.

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<sup>46</sup> Deliberate practice strategy

<sup>47</sup> Breath in- breath out as a meditative practice and performance strategy

### 5.3c The importance of common SF and Fp as a tool of connection with the Pianist

One of the most prominent musical elements of the 4th cello sonata of Beethoven are the SF and FP<sup>48</sup>. We see these musical colors-character all over the piece. With a fast reading of the music sheet we can see we have 47 SF(!!!) with the majority of them in the Allegro vivace (1st mov) and Allegro vivace ( 2nd mov) and 29 FP with again the majority of them in the allegro vivace of both movements. Also there are 4 SF in the adagio of the 2nd movement and 1 FP in the adagio of the 2nd movement.

It is very clear we have an absence of these musical elements in the adagio of the 1st movement due to the teneramente elegiac character of this movement.

So it's comprehensible from an artistic and practice view that these elements play a crucial role when performing , practicing by ourselves and playing together with the accompanist.

It is notable when performing together with the pianist, that our colleague has the same SF and FP elements like the cello.

So this is a character that can lower the level of the performance due to hit and miss because of tempo or technical difficulties or help us show the unity between the cello and piano in a high quality performance.

While practicing the sonata together with my accompanist i found it challenging to show this character in the extremity that is required ( see the extremity of musical characters and colors) . In order to achieve this unity with the piano we had to deliberate practice on these specific points. The deliberate practice methods and strategies i used together with my accompanist according to Zhukov's and Passaroto's respectable articles were *I) to drop the tempo so to be in an ease, II) use of Metronome ( so we can be precise with the SF and FP), III) break this musical lines into smaller fragments that are not bigger than 3 bars ( this SF elements we found them usually of clusters of 3 bars) and IV) show my intentions with breathing and eye contact.*

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<sup>48</sup> Sf- Sforzando ( Sforzando in musical notation means to play a note with sudden and strong emphasis and direction), Fp- FortePiano ( Fortepiano in musical notation means, the sudden dynamic change in a score or a note from Forte( loud) and then immediately to Piano ( softer)

It is clear that a vast variety of deliberately practice strategies can be used, as described in Passaroto's and Zhukov's Research in order to achieve the objective, that is to perform in a high performance level the Beethoven 4th cello sonata.

*Example<sup>49</sup>:* In this example it is clear the connection between the cello and the piano. When practicing this fragment with my accompanist it was extremely important to drop the tempo, occasionally use the metronome for precision and break the fragment in 3 bar musical phrases so the sf (Sforzando) can be more accurate.

It was clear that the use of intended breathing and eye contact was needed especially in the latest stages of practicing together and performing the piece in concerts.



The contrasting and extreme musical colors of Beethoven's music are synonymous with the SF and FP that we just described and by deliberate practice, one can get a foothold in this Sonata but also the rest of Beethoven Cello sonatas and music.

### *5.3d Breath in-Breath out, how breathing can help us connect with the Pianist and regulate our performance while playing*

Let's try a small experiment. Next time you practice together with your pianist or an ensemble, notice your breath. I tried this for myself while playing together with my accompanist and i realized i was just breathing in and breathing up more, creating

<sup>49</sup> Beethoven, L.V Sonatas Für Pianoforte und Violoncell, Nr.108 (pp.95-110), Breitkopf & Härtel, Leipzig, 1864, bar 1-5, 1st movement, Allegro vivace

tension in my body and mind and not giving to my body this exhale that so much was needed. Many musicians including myself were never conscious that this was happening while performing or even on practice sessions. By using meditation<sup>50</sup> as a practice strategy can drastically help us relax our body and minds during a stressful performance or even to give a specific amount of peace in our daily practice sessions. By consciously breathing in and breathing out, we take the tension of our hands and our mind can operate with more clarity and less fog.

This meditative practice can also help us connect with our colleagues on a musical level.

Beethoven's 4th cello sonata provides a great opportunity to try this. The sonata is full of musical, lyrical and intense fast tempo lines and individuals can try to breathe in-out in the piece accordingly. By doing this can also provide to the accompanist a great opportunity to understand the phrasing and motives and create an homogenous performance when done from both sides. Besides the homogeneity in music that can be achieved, it also offers a visual calmness effect to the audience when performing. By transmitting this calmness effect a wonderful musical experience for ourselves and for the audience can be offered .

### *5.3e The creation of a new musical environment and the need of keeping the intensity*

Everytime we perform a piece by ourselves or together with our colleagues we create new environments where we are able to experience music and the emotions that come with it. While we performing the 4th cello sonata of Beethoven, again by creating and re-creating this new environment, the performers ( cellist & pianist) and the audience ( when performed) we are experienced a *Mysterium Coniunctionis*<sup>51</sup>. In this joint effort to

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<sup>50</sup> Katie Zhukov: Effective practicing, a research perspective ( 2009, university of Queensland)

<sup>51</sup> *Mystery of Conjunction* ( mystical experience, through music in our case)- C.G Jung, *Mysterium Coniunctionis* (1970)

make music, the performers should also practice when playing together the re-creation of this environment and not just repeat just the notes but to participate in music even when practicing. Usually in this stage of performing together we are in the third and fourth big stage of practicing as is described by Katie's Zhukov research <sup>52</sup>. These stages are, i) achieving automation and memorisation and ii) polishing the piece up for a performance; and finally maintenance of the piece.

When I participated in the Masterclass of Prf. Michel Strauss i performed the sonata with the accompaniment of the piano. He mentioned multiple times the need to keep the intensity of the music and not get numb, especially in a masterclass situation where you have to start and stop constantly in order for the lessons to take place.

You can keep the intensity by firstly knowing the piece extremely well ( as required for professional masterclasses and conservatory level students<sup>53</sup>) and by practicing from before the musical character ( environment) with your pianist. By achieving easiness, it is possible to recreate the musical environment and make performances more solid.

## 6.Discussion

This research aimed to explore various deliberate and effective practice strategies while using Beethoven's 4th cello sonata as a medium in order to achieve this goal. The artistic genius and the performance relevance of Beethoven's cello sonatas in the professional music world in combination with effective and deliberate practice strategies contributed greatly to my understanding of the sonata. By seeking and using these

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<sup>52</sup> Katie Zhukov: Effective practicing, a research perspective ( 2009, university of Queensland)

<sup>53</sup> In higher education musical institutions, students participate in professional masterclasses where guest professors are invited . In these masterclasses it is important for the student to present a piece in the later stages of development and practicing. The goal of these masterclasses is to focus on interpretation and explore the musical ideas so the student can perform in a high level,professional environment

effective practice methods , offered me a strong theoretical and practical foundation of how can i use these deliberate practice strategies in order to enhance

- My Performances as a Cellist
- My teaching skills
- On how i can practice more effectively
- How to apply these tactics to the rest of the Beethoven Cello sonatas

Thanks to the literature input on historical, analytical and effective practice with the combination of my continuous reflection and personal practice on Beethoven's 4th cello sonata, i was able to answer my main research question: How can we practice Beethoven's 4th cello sonata more effectively? By reflecting and using these strategies in various phases of practicing and performing , alongside the various musical moments and movements of the sonata, played a significant role in the process of understanding and interacting with the sonata .

The findings/analysis related to the main musical and technical aspects of the sonata with the application and connection with the deliberate practice strategies, offered me answers to my first sub-question of this research: What technical and musical parameters should the cellist be aware of?

In my occupation with the piece the past two years of my Master studies i had the chance to identify the diverse musical and technical parameters of the sonata and the problems that may come out of them.

In my findings/analysis i showcase examples of these challenges that can be prominent in the sonata and how DP and effective practice strategies helped me overcome these problematic yet important musical/technical moments.

In my third subquestion of this research: What is the importance of the sonata in the development of the cello? My collected data and literature for the historical <sup>54</sup>and analytical context of the piece offered me an answer to this subquestion and i tried through the research to present briefly the importance of the sonata in the development of the cello<sup>55</sup>. Nevertheless, due to the nature of this research and the focus of it in the deliberate and effective practice strategies did not allow me to expand on this subject thoroughly .

For this reason further research and inquiries are required in order to offer a clearer answer to this problem with a strong historical and musicological focus point.

On the other hand my findings related to the reflective/ practice based part of my research, answered my final subquestion: Which effective and deliberate practice strategies can we use in order to effectively practice Beethoven's 4th Cello sonata and navigate through the complete Sonata's circle?

In this research i explored thoroughly these effective/deliberate practice strategies with the use of the 4th Beethoven cello sonata as a medium in order to apply these techniques. It became clear to me that with the use of these strategies as described from Zhukov's, Bender's and Passaroto's researches i was able to identify and overcome musical and technical difficulties of the sonata and achieve a high level of personal performance. These strategies, alongside with the stages of practicing as identified by Zhukov in Chaffin, R., Imreh, G. & Crawford, M. (2002)research , helped me navigate through the piece according to the needs and set the theoretical groundwork for my continuing work with Beethoven's cello sonatas.

An ambitious future goal that could be really beneficial for me personally as a professional musician and for other cellists/ Pupils, would be to conduct further research on the topic of DP/ effective practice with the remaining Beethoven cello sonatas and discover the connecting elements between the rest of the Sonata's and effective practice techniques as were presented in this research.

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<sup>54</sup> Beethoven's Cello: Five revolutionary sonatas and their world (2017) , Marc Moskowitz, Larry Todd, Boydell press

<sup>55</sup> From a perspective of technique, musicality and inspiration to the future composers to compose to cello as a main and equal instrument



The combination of the findings offered me a spherical understanding on how i can practice more effectively, not only Beethoven cello sonatas but how i can be more productive and systematic in my approach to the pieces that i perform and practice.

This new approach to practice helped me with a major problem of mine that was time-waste and unconscious-repetitive practice. This research helped me immensely to deal with this problematic approach and helped me be more efficient.

By being efficient in my practice time, helped me be more prepared and artistically to further enhance my performances. This had a positive impact also on my mental well-being by reducing my performance anxiety and stress levels. Moreover, the newfound approach has transformed the way I engage with my practice sessions, providing a holistic benefit to both my artistry, professionalism and overall mental health.

## 7. Conclusion

With this research i aimed to explore a variety of various deliberate and effective practice strategies and techniques by using one of the most significant and challenging pieces in the cello literature -Beethoven's 4th cello sonata ( op.102, nr.1) .

My main aspiration for this endeavor was not only to shed light to my main research question and subquestions that emerged from my occupation with the Sonata and the relevant literature over the topic but also to use this research as a point of reference for my future goals and professional ambitions. Besides the musical and technical difficulties that they are present all over the 4th cello sonata and the challenges that arise, with conducting this research i focused on the positive aspects of practicing this piece while i used these confrontations with Beethoven's idiosyncrasy, in order to become a better musician with the application of these various deliberate practice strategies inside the different practice stages.

A significant realization while conducting this study was the further applicability of these deliberate practice strategies. One of the initial goals of this research was not only to use these techniques for deliberate practice and solely explore the 4th Beethoven cello sonata, but to serve also as a reference point for the rest of the sonata's circle. As part of this realization i started using these methods on other pieces of my repertoire as well in order to reach my artistic expectations faster and in a more organized and methodical manner.

Besides the personal artistic benefits and development that i experienced by conducting this study an other major implication of this research is the educational value of it. I firmly believe that these deliberate and effective practice methods can be used as a tool to help pupils and students reach their musical goals, regarding not only the music of Beethoven or the 4th cello sonata, but to serve as a holistic approach to the cello repertoire and the personal development of each pupil. However, further research is necessary to validate the applicability of these methods to students across various age groups, considering the diversity in their levels of engagement with the cello.

In terms of performance, throughout this research, i gained a profound sense of musical and technical freedom that elevated my personal performances and concerts. By applying these strategies i was able to identify and resolve the challenges that arose from my practice and interaction with the sonata. This helped me realize and achieve my artistic vision of the sonata and helped me raise my performance level.

As I contemplate my professional future, my next objective is to extend the application of these strategies to the rest of the Beethoven cello sonatas with the aspiration to perform, teach and create compelling new projects by drawing inspiration from this fundamental cornerstone of the cello repertoire.

To conclude, the research had an undoubtedly positive impact on how i approach effective practice which helped me grow technically, musically and artistically. It helped me realize chronic issues in my approach to my practice and guided me overcome these obstacles. By using Beethoven's 4th cello sonata as a medium to effective and

deliberate practice, opened new doors and opportunities to develop my artistic identity and offered me the prospect to further explore the application of the research outcomes to the rest of my repertoire and situations.

As i contemplate on this challenging but rewarding journey, i am reminded that Beethoven's music continues to serve as a source of inspiration, fueling my passion for music and cello and motivates me in my ongoing journey through the professional music world and artistic excellency.

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## Online Content

Beethoven: Cello sonata No. 4 in C major - Marcel Johannes Kits & Sten Heinoja, youtube: <https://www.youtube.com/watch?v=AXqzFEZ0BGQ>

Beethoven: Cello Sonata no. 4 - 1st movement (Benjamin Zander - Interpretation Class), youtube: <https://www.youtube.com/watch?v=o1X4Ad29hTM>

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## Appendices

### Appendix 1: Main points of Masterclass with Professor, Michel Strauss (16th February 2022)

#### The use of pinky in the bow in order to obtain balance in lyrical passages

The appropriate use of the fingers and arm on the right hand can prove really helpful and upgrade the sound quality, projection and musical colors in my playing. He showed me an exercise where I just lift the bow with the use of all my fingers while I am aware of the 4th finger. The exercise is basic for all levels of playing but proved helpful ( it is an exercise that i am doing even today in my daily warm up, it offers me awareness, more strength on my fingers and my bow control. In consequence i feel more control over my bow with all kinds of repertoire).

**Exercise 1:** Leave the cello aside and pick up the bow. Place all fingers softly in the appropriate place. With the power of your fingers while you hold the bow, lift softly the bow and again softly and while in control of the fingers let it down.

Repeat this exercise multiple times until you get comfortable and flexible with the movement.

**Exercise 2:** Is advisable to start the practice session with open strings, in order to find our sound and balance with the instrument. While we play open strings and our right hand fingers are in the right place, while the sound and the bow movement progresses we lift step by step each finger. Every time we lift a finger the previous falls back in place. Is important to keep the shoulder blade and right arm elbow in the right position.

### **A view on the maintenance of intensity in the music ( Beethoven 4th Cello sonata)**

While playing I was losing at some points the intensity of music. He claimed no matter the dynamics of the music, always as musicians we have to keep a level of intensity and flow of the music. We can achieve this with awareness, confidence, good articulation on both hands and to use our right hand ( bow) accordingly with the phrasing ( movement of fingers, hand and back muscles).

### **The point on the extremity of musical colors**

When I performed the sonata for him, one of the main pillars of his commentating was the extremity of the colors. My interpretation for him was a bit mellow and I could use more of the contrast between the Piano's, Forte's and the colors in the between ( like SF,Pf etc.) The way to achieve this is by awareness of the partiture both the cello and the piano one, use more speed and power to the bow, or the opposite when we have to deal with sudden PP. These aspects can be connected also with clear articulation of the left hand and the conscious use of different styles of vibrato( slower or faster vibrato)

## Appendix 2: The movement problem of the 4th Cello sonata of Beethoven

There is a big controversy between scholars, musicologists and musicians on how many movements officially the 4th cello sonata has. Some claim four and others claim two.

The official records and musicologists such as Marc Moskowitz and Larry Todd in their book, *Beethoven's Cello: Five revolutionary sonatas and their world* (2017) claim that the sonata is divided into two big movements with different themes presented in the between of the movements( for example **1st mov.** *Andante-Allegro Vivace*, **2nd mov.** *Adagio – Tempo d'andante – Allegro vivace*)

In my experience and conversations with colleagues and cello professors some claim that the sonata has 4 movements and they separate the above indications as separate movements.

Personally i agree with the opinion that the sonata has two distinct movements and with my occupation with this sonata i performed the piece in this manner.

Nevertheless, this is an ongoing discussion between experts. In the meanwhile 4th Beethoven Cello sonata, together with the rest of the sonata circle are being continuously performed worldwide and enjoyed by millions of people.