

Re-evaluating ornamentation in a piano performance of JS Bach's Goldberg Variations BWV 988

by

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DECLARATION

I, Gareth Edward Ross, hereby declare that the mini-dissertation entitled “**Re-evaluating ornamentation in a piano performance of JS Bach’s Goldberg Variations BWV 988**” represents my own work which has been done for the degree Master of Music (Performing Arts) at the University of Pretoria, and has not been previously included in a thesis or dissertation submitted to this or any other institution for a degree, diploma, or any other qualification.

Where secondary material is used, this has been properly acknowledged and referenced in accordance with university requirements.

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A handwritten signature in black ink, appearing to read 'G. Ross', written in a cursive style.

Gareth Edward Ross

Abstract

This dissertation investigates the practical considerations of executing specific ornaments in a piano performance of JS Bach's Goldberg Variations BWV 988. Research will be presented which highlights how an understanding of the composition's large-scale structure has an effect on the tempo choices by the performer, ultimately influencing the rhythm of an ornament. Various scholars' rules and approaches towards ornamentation in the keyboard music of JS Bach will be scrutinised and applied in music examples from the Goldberg Variations. In some instances these rules will be shown to be contradictory and ineffective. Thus, their use in a modern performance of the Goldberg Variations becomes redundant. An analysis of performing traditions from reputable Bach keyboardists will be discussed, where their approaches to ornaments in the Goldberg Variations will be compared with the academic perspectives previously presented. The present writer will conclude this dissertation by offering his own solutions to ornaments in the Goldberg Variations which take into account the research and evidence gathered in the preceding chapters. To further support his choices of ornamentation a live and unedited recording of his performance of the Goldberg Variations has been included as an appendix. He endeavours for this dissertation to give the performer greater individuality in his/her approach to ornamentation in the keyboard music of JS Bach.

TABLE OF CONTENTS

Acknowledgements	7
INTRODUCTION	8
1.1 Background to the study.....	8
1.2 Aims/purpose of the study.....	8
1.3 Research questions.....	8
1.4 Literature review.....	9
1.4.1 Principal writings.....	9
1.4.2 Secondary writings.....	13
1.5 Research methodology.....	15
1.5.1 Research paradigm/research approach.....	15
1.5.2 Data collection techniques.....	16
1.5.3 Data analysis and interpretation.....	17
1.6 Delimitations of the study.....	17
1.7 Chapter outline.....	18
CHAPTER 1	20
GENESIS AND STRUCTURAL OVERVIEW OF THE GOLDBERG VARIATIONS	20
CHAPTER 2	32
OPPOSING VIEWS ON ORNAMENTATION IN JS BACH'S KEYBOARD WORKS	32
2.1 Ornament tables.....	33
2.2 Rules on ornamentation.....	37
2.3 The appoggiatura.....	39
2.4 The trill.....	45
2.4.1 The <i>Pralltriller</i> and <i>Schneller</i>	47
2.4.2 Anticipated trills and the slide.....	48
2.5 Conclusion.....	51
CHAPTER 3	52

CHOICES OF ORNAMENTATION IN THE GOLDBERG VARIATIONS: AN ANALYSIS OF RECORDING TRADITIONS.....52

3.1	Aria.....	53
3.2	Aria da capo.....	59
3.3	Variation 5.....	60
3.4	Variation 7.....	61
3.5	Variation 11.....	61
3.6	Variation 13.....	63
3.7	Variation 25.....	64
3.8	Conclusion.....	66

CHAPTER 4.....69

THE APPLICATION OF VARIOUS FORMS OF ORNAMENTATION IN JS BACH'S GOLDBERG VARIATIONS: A PRACTICE-BASED APPROACH.....69

4.1	Aria.....	69
4.2	Variation 5.....	71
4.3	Variation 7.....	72
4.4	Anticipated <i>Schnellers</i>	72
4.5	Variation 11.....	74
4.6	Variation 12.....	75
4.7	Variation 13.....	76
4.8	Variation 15.....	77
4.9	Variation 16.....	78
4.10	Variation 17.....	79
4.11	Variation 20.....	79
4.12	Variation 22.....	80
4.13	Variation 25.....	81
4.14	Additional ornaments.....	83
4.14.1	The canons.....	83
4.14.2	Variation 19.....	84
4.14.3	Variation 22.....	85
4.15	Conclusion.....	85

Appendix 1.....88

SOURCE LIST.....89

1. Books and articles.....89

2. Scores.....91

3. Discography.....92

4. Online videos.....94

5. Websites.....95

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I would like to dedicate this dissertation to my late mother, Antoinette Ross, whose extraordinarily strong spirit inspires me to continue pushing myself towards excellence.

Introduction

1.1 Background to the study

Upon beginning to learn the *Aria mit verschiedenen Veränderungen* (hereafter Goldberg Variations) by Johann Sebastian Bach at the piano, I encountered a few practical and harmonic problems when performing ornaments in certain variations according to the performing traditions I had learned as a pianist from the same composer's *Explication (Klavierbüchlein für Wilhelm Friedemann Bach 1720)* and his son CPE Bach's *Versuch über die wahre Art das Clavier zu spielen* (1753). This led me to compare the ornament markings in other editions and research editorial suggestions when executing these ornaments (Kirkpatrick 1938; Roizman 1980; Dreyfus & Wolff 1996). Together with this, I began scrutinising various recordings of the Goldberg Variations (including Gould 1955 & 1981; Schiff 1983; Perahia 2000;) to ascertain pianists' approaches to ornamentation. The differences in editorial suggestions and performance interpretations prompted me to further investigate the concept of ornamentation in the 18th century (Boyd 1999; Neumann 1989 & 1993) to see how these findings can be applied to the music of JS Bach and more specifically, the Goldberg Variations.

1.2 Aims/purpose of the study

I shall endeavour to present how the traditional means of executing ornaments by using the ornament tables of JS Bach and CPE Bach need to be re-evaluated when performing the Goldberg Variations on the modern piano. I also intend to show how performance practices from the 18th century can be combined with practical perspectives of performers closer to our time (documented through recordings) of the Goldberg Variations. I aim to display how an understanding of the structure of the Goldberg Variations influences the choice of ornamentation and I shall demonstrate how diversity in ornamentation can reflect and enhance the variety of musical character within the work.

1.3 Research questions

Main research question:

How are various forms of ornamentation applied in a piano performance of JS Bach's Goldberg Variations?

This will be supported by the following secondary questions:

1. What are the historical approaches to ornamentation in the music of JS Bach and how can these be applied to the Goldberg Variations?
2. How does the structure of the Goldberg Variations determine the choice of ornamentation?
3. What tendencies of ornamentation can be drawn from an analysis of various recordings of the Goldberg Variations?
4. How can a personal performance interpretation impact the execution of ornaments in the Goldberg Variations?

1.4 Literature review

1.4.1 Principal writings

The Bärenreiter Urtext (Wolff 1977) of the Goldberg Variations will serve as my primary source for this study and it will be supported by other editions including the Wiener Urtext (after the *Neue Bach-Ausgabe*, Dreyfus & Wolff 1996), Bach Gesellschaft (Becker 1853), Busoni (Breitkopf 1915) Muzyka (Roizman 1980), two Peters editions (Czerny, Griepenkerl & Roitzsch 1898; Martienssen & Soldan 1937), Schirmer (Kirkpatrick 1938) and an edition of the Bärenreiter Urtext edited by Mikhail Arkadev (2002) and Wolff. The reason I have chosen this specific Bärenreiter edition for my primary source is that it includes no additional phrasing, articulation, ornamentation or dynamic markings by the editor, thus remaining true to the original manuscript by JS Bach. It also includes the corrections found in JS Bach's *Handexemplar* of the Goldberg Variations which was discovered in 1975 (Wolff 1976, p. 224), thereby making it one of the most authentic and comprehensive editions of the Goldberg Variations currently available. Further to this, the two Peters editions as well as those by the Bach Gesellschaft and Schirmer do not include any of the *Handexemplar* corrections which have a notable impact on the text itself including tempo indications, articulation and ornamentation. The Muzyka and Wiener Urtext editions include the *Handexemplar* corrections and both provide suggestions for executing ornaments, albeit in a notably different manner.

In the 'Notes on Interpretation' section of the preface to the Wiener Urtext, Dreyfus states on the topic of ornamentation: "With the exception of the 'Schleifer' or slide (*Aria*, bars 21 and 23), all of the ornaments used in the Goldberg Variations are explained in Bach's *Klavierbüchlein für Wilhelm Friedemann*" (1996:9). Dreyfus does not notate any execution of ornaments within the actual score and in some instances her suggestions in the 'Detailed Notes' section are practically impossible: in Variation 11 (bars 5,6, and 7 left hand; bars 13, 14, 15 right hand) she advises that the trill in the

left hand should continue to the tied note on the third beat, however the right hand plays one of the notes contained within the trill *before* the third beat - therefore the trill would have to stop at the moment the note is struck for the purposes of practicality and clarity.

Example 1: JS Bach, *Goldberg Variations*, Variation 11 bar 5 (Dreyfus & Wolff 1996)



In contrast to Dreyfus' suggestion of executing the ornaments in Variation 11, Roizman (1980) does not adhere to continuing the trill to the third beat, but instead he simplifies and shortens the trill seemingly considering the practical implications of the hands being in each other's way.

Example 2: Roizman's suggestion of executing the trill



Roizman also does not rely entirely on the ornament table of JS Bach when devising solutions for ornaments. An example of this can be found in Variation 5 (bar 17 right hand), where Roizman suggests a simplified ornament (a pattern of two semiquaver triplets, equaling a crotchet beat) that will fit within the brisk tempo of this first toccata-style variation in the *Goldberg Variations*. However, if one was to follow Dreyfus' methods in this instance, using the *Explication* would mean attempting to fit in 12 demisemiquavers into a crotchet beat. At the quick tempo this variation requires, it becomes practically impossible to fit in this ornament without slowing down the tempo. While Roizman's ornamentation suggestions are helpful to the performer, the score itself is highly edited with tempo markings, ornamentation and dynamics which if followed directly, allows for only one type of interpretation by the performer - that of Roizman's. His editorial markings can provide insight into the character of each variation, however if performed exactly as edited then it limits the performer's own imagination and approach towards articulation, dynamics and tempi. This can also be applied to the edition edited by Czerny, Griepenkerl and Roitzsch (1898) as it too has been heavily edited with phrasing, articulation, dynamics and tempo markings.

The Kirkpatrick edition (1938) of the Goldberg Variations begins with a preface which includes chapters on its origin, form, the instrument, ornamentation, fingering, phrasing, tempo, dynamics and general interpretation of the composition. While some of the information is useful, such as the harmonic analysis of the bass line in the Aria which forms the foundation of the Goldberg Variations, other points Kirkpatrick makes are more questionable. One in particular is how he refers to the books of CPE Bach, Couperin, d'Anglebert, Marpurg, Quantz, St. Lambert and Türk as being "far more fruitful and adequate sources of information for Bach ornamentation" as opposed to JS Bach's own *Explication* (1938: xi). Kirkpatrick's actual score of the Goldberg Variations can be difficult to read at times as he often includes a second piano stave above the original in order to write out the ornaments in full and redistribute the writing between the hands for practical purposes. Apart from the missing *Handexemplar* corrections, there are also some errors in the score such as a missing appoggiatura in bar 20 of the Aria. However, in bars 8 and 9 of Variation 15, it is of interest that Kirkpatrick suggests the addition of 'missing' ornaments so that the canon could be executed with greater precision and clarity.

What sets Arkadev's edition of the Bärenreiter score apart from all other editions is that he first includes the clean, original notation of the Goldberg Variations as edited by Wolff (1977) and then provides two versions of the complete score with his own phrasing, articulation, dynamic and grouping markings written in by hand. In his second version he writes multiple phrasing and slurring suggestions one above the other, so that the performer may choose the option best suited to his/her preferences. As a performer I found Arkadev's edition helpful in conceiving multiple ways to think about how the music is constructed and it steered my attention towards a multitude of interpretation options.

According to Cory Hall (2005) one oversight in all the editions of the Goldberg Variations has to do with the fact that a fermata has been placed at the end of each variation. He argues that Bach's autograph manuscript from 1741 shows that not every variation ends with a fermata, but rather that the fermatas Bach wrote indicate a symmetrical arrangement of single and grouped variations. He proposes that this symmetrical arrangement has an influence on tempo relationships and pauses between variations which should be considered by the performer. With symmetry already being evident in the structure of the Goldberg Variations - such as the *Aria* bookending the work and every third variation being a canon - I believe Hall's proposal of symmetrically grouped variations to be noteworthy as it brings further cohesion to the work as a whole.

When it comes to the genesis of the Goldberg Variations (which constitute part four of Bach's *Clavierübung*), many sources (Hewitt 2000; Kitchen 1993; Malcolm 1983; Riley 2009; Salter 1987; Simeone 2011; Wilkinson 2000) recount Johann Nikolaus Forkel's story from his 1802 biography

on JS Bach where the composer was asked to write a piece of music for Count Keyserlingk to help alleviate his insomnia. The music was to be played by the Count's harpsichordist Johann Gottlieb Goldberg and thus Forkel called the composition the "Goldberg Variations" (Van der Schyff 2010). While Forkel's story of how the Goldberg Variations came into existence is a popular one, there are points of contention: there is no dedication to the Count on the title page of the work; Goldberg would have been in his early teens when the work was finished in 1741, calling into question whether he was able to cope with the technical demands of the work; and according to Riley (2009), the golden goblet which was supposedly gifted to Bach by the Count (Forkel 1802) was not mentioned in the inventory of Bach's estate.

Williams (2001) postulates that Bach had in mind one of his own sons, Wilhelm Friedemann, as the virtuoso who could perform the demanding set of variations. Williams goes on to suggest that when JS Bach visited Dresden in 1741 - not just to see Wilhelm Friedemann - he brought with him and presented to the Count a signed copy of the Goldberg Variations which was on sale at the time. Regardless of who Bach had in mind to perform the work or how it came to be composed, one cannot overlook the fact that the Goldberg Variations represents the zenith of Baroque keyboard music (Malcolm 1983; Riley 2009; Tureck 1988; Wilkinson 2000). This is due not only to the work's length (over 70 minutes when performed in full), but also to the inclusion of a variety of Baroque keyboard genres contained within the Goldberg Variations: polonaise; canons; gigue; fughetta; French overture; quodlibet and virtuosic toccatas are all represented in this large-scale composition.

The liner notes of compact disc recordings of the Goldberg Variations by the performers themselves provide insight into how they perceive the musical qualities contained within the composition. Tureck (1988:3) refers to Variation 15 as "...writing of the most profound emotional depth and breadth...its final note...seeming to ascend sublimely into space." While Hewitt (2000:5) speaks of Variation 3 as "hint[ing] at a mood of pastoral simplicity with a touch of the dance", Perahia (2000:10) describes Variation 25 to be "a programmatic depiction of the Crucifixion or, at the very least, of the deathly atmosphere it evokes." These descriptions from fellow performers can bring about new ideas and ways of interpreting the music. A recording of the Goldberg Variations arranged for string trio by Dmitry Sitkovetsky (Hyperion 2010) may lead one to completely reimagine the soundscapes and textures of the music. Simeone (2011) describes Variation 16 as quasi orchestral and Variation 25 as being well-suited to string instruments as their sustaining power allows the dissonances to be relished to the full.

It is Williams (2001) who offers the most detail when it comes to discussing each variation individually, dedicating a chapter in his book to each of the movements in the Goldberg Variations.

He speaks of musical genre influences from Corelli, Handel, Scarlatti and Vivaldi in addition to referencing other musical works by Bach himself. For example, Williams points to Bach's Prelude in B flat major from *Das Wohltemperierte Clavier* Book 2 as a consideration when determining a suitable tempo choice for Variation 11, as their figuration and motifs are similar. As a performer, this is worth considering in light of the fact that Variation 11 poses technical problems due to the hands playing on top of each other with the added difficulty of fitting in lengthy trills.

In order to ascertain both common and unique choices of ornamentation by performers I have investigated a multitude of recordings including Barenboim (1989), Gavrilov (1993), Gould (1955 & 1981), Hewitt (2000), Landowska (1933 & 1945), Leonhardt (1965 & 1976), Perahia (2000) and Schiff (1983 & 2015). Some of my findings will be discussed in the next section of the literature review.

1.4.2 Secondary writings

When it comes to interpreting ornaments in the Goldberg Variations, the two main sources which are usually referred to by editors (Kirkpatrick 1938; Dreyfus & Wolff 1996) are JS Bach's own ornament table and the *Versuch über die wahre Art, das Clavier zu spielen* by CPE Bach (1753). I have already stated how Dreyfus (1996) advises that all ornaments in the Goldberg Variations should be realised from JS Bach's own ornament table, however Kirkpatrick goes further by not only including this table and the treatise by CPE Bach, but he also takes into account books by d'Anglebert (1689), Couperin (1713; 1717), Marpurg (1755), Quantz (1752), St. Lambert (1702) and Türk (1802). Kirkpatrick states that Dannreuther's book on ornamentation (1895) is "full of mistakes and inconsistencies in the section dealing with JS Bach" (1938:11). While he praises the work of Dolmetsch (1915) as "indispensable and for the most part accurate" (1938:11), when it comes to the notation examples of ornaments Kirkpatrick mainly cites CPE Bach, d'Anglebert, Marpurg, Quantz and Türk. In her section on ornamentation in the Goldberg Variations Dowdle (1991) refers to the ornament tables of Couperin and Rameau in order to ascertain general principles of ornamentation. She mentions how Bach "broke the rules" (1991:42) in Variation 13 of the Goldberg Variations by beginning the first turn on the main-note (not on the one above it) and that it consists of five notes and not four. Van Zyl (2015) goes into detail of the French and Italian traditions of ornamentation stating that they were the basis of Bach's ornamental style. She does not, however, mention the *Schneller* as a possible short-note trill in Bach's music, citing only the *Pralltriller* favoured by CPE Bach. She states that a short appoggiatura written as a semiquaver or demisemiquaver is to be played "very quickly on the beat" which would create, according to her, "a good rhythmic effect" (2015:49). The present writer finds this suggestion to not always be

advisable, particularly in the Aria of the Goldberg Variations, as it would interrupt the calm and introspective nature of the music.

Neumann (1989) takes a strong stance against the strict use of ornament tables and the application of other composers' patterns (such as CPE Bach, Couperin and Marpurg) in the music of JS Bach. He states that because an ornament has no rigid shape and is like an organic substance, its execution should not be bound by strict mathematical ratios. He goes on to say how scholars and performers rely too much on the mathematical face value of ornament tables and thus "they use them like prefabricated spare parts mechanically inserted" (1989:124). He calls the application of ornament tables by one composer to another a "fatal mistake" (1989:124) as they could be separated by time, style, region and nationality. Neumann goes on to claim that "[t]he very idea that, say, Bach performed in the same manner as Couperin or as Pergolesi, or Mozart in the manner of CPE Bach, is almost on the face of it incongruous" (1989:124).

Boyd is generally in agreement with Neumann's thinking (1989) and calls his work "by far the most informed and intellectually challenging study of Bach's ornamentation" (1999:350). With regard to Bach's own ornament table Neumann (1989:127) stresses that "the table tells us that the graces in question *may* have the shapes indicated, but not that they *must* have these shapes which...are often disqualified by musical evidence". Boyd further points out that Bach's *Explication* is a rudimentary guide to ornaments (as it was written for Wilhelm Friedemann who was only 9 years old at the time) and that it omits two widely used ornaments: the appoggiatura as indicated by a small note and the slide.

Boyd also mentions how Neumann and Badura-Skoda argue that Bach had a flexible approach to ornamentation, allowing for main-note trills and pre-beat appoggiaturas (which were against the rules of CPE Bach, Quantz and Marpurg), and that the player should consider factors such as part-writing, melodic line and dissonance treatment when deciding how to interpret an ornament. Badura-Skoda's case for main-note trills is discussed in his 2013 article where he refers to the upper-note *Pralltriller* (mordent) as the 'Landowska trill'. Badura-Skoda argues that the harpsichordist Wanda Landowska has led many keyboardists astray with her interpretation of the *Pralltriller* due to an editorial mistake in the first edition of CPE Bach's *Versuch* (1753) where a tie was left out. This mistake, too, is noted in Kirkpatrick's preface to the Goldberg Variations (1938: xiv). Regarding Variation 25, Booth (2014: 264) argues against playing the single-note ornament as "short, unvariable [*sic*] appoggiaturas" (according to CPE Bach's rule) as the lyrical quality of the melodic line would be compromised. This is reflected in the article by Kochevitsky (1975) where he presents a solution by the pianist Jörg Demus who turns the single-note ornament into the first note of a triplet, thereby giving the ornament greater melodic importance. Arrau (1988), Barenboim

(1989), Gould (1955; 1981), Leonhardt (1965 & 1976), Levit (2015), Perahia (2000) and Schiff (1983) all play this single-note ornament according to CPE Bach's rule, almost sounding like an acciaccatura and notated as such in Kirkpatrick's edition (1938). On the other hand, Tureck (1998) and Landowska (1933) adopt an approach similar to Demus (Kochevitsky 1975:37), with Landowska being the more expressive in executing the ornament.

Neumann's book on performance practice (1993) provides a detailed description of the regional history and application of baroque ornaments, presenting examples from English, French, German and Italian composers of the time. Due to the Goldberg Variations representing a high point in Baroque keyboard music, Neumann's work needs to be considered towards a holistic and historically accurate performance. Boyd (1999:350) defines the most basic function of musical ornamentation as "the controlled and expressive use of dissonance". I have kept this definition in mind when assessing editorial suggestions and performance interpretations of ornaments in the Goldberg Variations.

1.5 Research methodology

1.5.1 Research paradigm/research approach

The research for my dissertation will sit within the paradigm of interpretivism with a relativist ontology and subjectivist epistemology. As my investigation proceeds, the findings are created through conflicting interpretations of ornamentation in text and in performance by musicians. Raskin (2008:13) states that relativism relates to the ontological idea that knowledge always comes from an 'evolved perspective or point of view'. I shall study the historical context of ornamentation in the piano music of JS Bach and the various ways in which it has been interpreted over the past 300 years. I aim to present my findings from a contemporary, evolved and inclusive perspective on the subject of ornamentation in this dissertation. Due to myself as the investigator and the object of my investigation being intrinsically linked, this study presents itself with a subjectivist epistemology wherein I shall present my own interpretations of ornamentation based upon my findings and values. The methodological approach I shall use is practice-led research which falls under the category of qualitative research.

Merriam (2016:15) states that "qualitative researchers are interested in understanding the meaning people have constructed" which in my study can be applied to various perspectives (thus opinions created over a long period of time) on ornamentation in JS Bach's Goldberg Variations. I shall seek to understand these constructs of ornamentation, including their history, in order to apply them practically on the piano when performing the Goldberg Variations. Further to this, the process of

enquiry is inductive as I as the researcher am the primary instrument in data collection and analysis, and shall build concepts on ornamentation after gathering data on the topic (Merriam 2016: 21).

McNiff (2011:385) defines arts-based research “as involving the researcher in some form of direct art-making as a primary mode of systematic inquiry”. This shall be my approach when I apply my findings on ornamentation in the music of JS Bach to a performance of the Goldberg Variations on the piano. The artistic experimentation will begin by examining the phenomenon of ornamentation closely, then exploring how writers and performers have treated it in order to make preliminary studies on the matter. Thereafter I shall set aside these findings in order to engage with the topic in a fresh manner by combining personal knowledge and skills of expression to instinctively inform experimentation and reflect on the experiences afterwards (McNiff 2011). The goal of experimentation with ornamentation is to allow the performer true freedom in making a decision as opposed to simply choosing between alternatives presented by editors and ornament tables. This will lead to personal decision making by myself as the researcher, albeit with faithfulness to the composer’s intentions and historical performance practice in mind.

Therefore, this dissertation will also present itself as a case study in Baroque keyboard ornamentation and performance practice, applied to a piano performance of the Goldberg Variations. Bakker (2012:487) regards case study research as placing an emphasis on the importance of interpretation of human meaning which I apply to the human’s general interpretation of JS Bach’s ornaments for this study. With the goal of case study research - according to Bakker - being to grasp the entirety of a situation, I will endeavour to understand as much as possible about ornamentation in the music of JS Bach and then apply it to the piano when performing the Goldberg Variations.

1.5.2 Data collection techniques

I shall primarily be collecting secondary data (Walliman 2011:84) for my dissertation beginning with multiple editions of the Goldberg Variations sheet music from music libraries and the internet. By playing the ornaments in the Goldberg Variations on the piano, I shall be able to garner a sense of whether the editors’ suggestions can be practically executed without hindering the musical intentions with impractical ornamentation. The instances where editors’ suggestions pose a challenge to performance will be studied in greater detail, with alternative suggestions of execution being researched from other editions of the Goldberg Variations and articles on ornamentation.

Sourcing literature on the genesis, history and structure of the Goldberg Variations will be my next step in data collection in order to ascertain the composition's place in JS Bach's oeuvre as well as its structural components. These structural elements contain characterisations of the music itself which will be studied and performed at the piano in order to obtain a high level of diversity and contrast within the music. Following this, gathering literature on 17th and 18th century performance practices alongside articles and historical documents on ornamentation in the music of JS Bach will be my next phase of collecting data. The final stage of my data collection process will involve auditory scrutiny of multiple recordings of the Goldberg Variations in order to find trends and unique interpretations of ornamentation by the performers themselves.

1.5.3 Data analysis and interpretation

By conducting a musical score analysis and then a comparative analysis of different editions of the Goldberg Variations, I shall look for any textual errors including the exclusion of the *Handexemplar* corrections of JS Bach. I shall compare the editorial suggestions of ornaments and correlate their interpretations with data on historical performance practice of ornamentation in 17th and 18th century music and how this applies to the music of JS Bach. By doing further documentary analysis I shall seek to discover unique ornamentation suggestions in the Goldberg Variations to gain a more comprehensive and free-thinking approach on the matter. I shall then perform the variety of ornament executions I have researched on the piano to assess their practicality, feasibility and stylistic accuracy within the character of the movement they relate to. From an analysis of the sheet music and repeated practice at the piano, I shall aim to bring out the musical diversity of each variation and consider how the ornaments contained therein can be performed to further accentuate the character of the music. Further to this, an auditory analysis of multiple recordings of the Goldberg Variations by pianists, harpsichordists and string ensembles will be conducted in order to ascertain trends and unique approaches to ornamentation and the components which create musical character such as articulation, dynamics, phrasing and tempo choices. I shall present my findings and suggestions of ornamentation by providing musical examples with the notation of the ornaments written out in full.

1.6 Delimitations of the study

I shall neither be conducting an extensive structural analysis of the Goldberg Variations in this dissertation, nor a comprehensive study of piano technique (articulation, pedaling, phrasing etc.) when performing the music of JS Bach. However, I may refer peripherally to these concepts in order to support my claims on ornamentation as they have an effect on the diverse musical characteristics contained within the composition.

I have not chosen to study all the available recordings of the Goldberg Variations, but I have rather chosen a diverse selection based on the following premises: noteworthy acclaim from critics (Gould 1955 & 1981; Perahia 2000); Bach specialists (Hewitt 2000; Schiff 1983; Tureck 1998); renowned concert pianists (Arrau 1988; Barenboim 1989; Dinnerstein 2007; Gavrillov 1993; Kempff 1970; Tipo 2007; Stadtfeld 2004; Tharaud 2015); recent recordings (Koroliov 2013; Levit 2015; Rana 2017; Tharaud 2015); arrangements (Fretwork 2011; Leopold String Trio 2010; Quatuor Ardeo 2018); and harpsichordists (Egarr 2005; Landowska 1933 & 1945; Leonhardt 1965 & 1976). However, I have ultimately decided to narrow down my analysis to those recordings listed at the beginning of Chapter 3.

While the Goldberg Variations were originally written for the harpsichord, I shall not be looking at the differences between playing the work on the piano and the harpsichord. There is debate amongst scholars about the authenticity of the music being lost when performing it on the piano and Dowdle's thesis (1991) engages with the stylistic transference of playing the work on the piano. Due to myself being a concert pianist I think it is unnecessary to engage in the debate on harpsichord vs piano in this study (though harpsichord was my second instrument at university), and thus my aim is to only discuss the subject of ornamentation in the Goldberg Variations when performed on the piano.

1.7 Chapter outline

Chapter 1: A Structural Overview of the Goldberg Variations

Beginning with a short historical background of the Goldberg Variations' genesis, this chapter will then continue to provide a structural overview of the work, pointing out meaningful symmetrical relationships and how these have an effect on understanding the musical diversity of the composition. This will be further discussed by presenting how the symmetrical relationships have an effect on tempo relationships and thus the ornamentation in the music.

Chapter 2: Opposing Views on Ornamentation in JS Bach's Keyboard Works

I shall present a concise overview of the historical approach to ornamentation by discussing each ornament which appears in the Goldberg Variations. I shall also discuss the historical context and application of ornament tables by JS Bach and CPE Bach as these are the most widely used when interpreting ornaments in JS Bach's music. Some references will be made to other ornament tables by Agricola, Couperin, Marpurg, Quantz and Türk as these have been included as editorial

suggestions in the Goldberg Variations. I shall then compare the older forms of ornamentation with more modern approaches from Badura-Skoda, Kochevitsky and Neumann.

Chapter 3: Choices of Ornamentation in the Goldberg Variations: An Analysis of Recording Traditions

As the title implies, this chapter will be dedicated to presenting similarities, differences and ingenuities of ornamentation in the Goldberg Variations. These will be correlated against the findings in chapter 2 together with any evidence of the chosen ornamentation by performers being found within the score of the Goldberg Variations itself.

Chapter 4: The Application of Various Forms of Ornamentation in JS Bach's Goldberg Variations: A Practice-Based Approach

The findings of chapters 2 and 3, together with the consideration of symmetrical relationships found in chapter 1, will all be applied in this chapter to the physical execution of ornaments at the piano. Their practicality and feasibility will be researched at the piano and suggestions of execution will be made through musical notation.

Chapter 1

Genesis and Structural Overview of the Goldberg Variations

The *Aria mit verschiedenen Veränderungen* BWV 988 (hereafter Goldberg Variations) by Johann Sebastian Bach was printed and published in Nuremberg, Germany in 1741 (Boyd 1999). The original title page bears the following inscription, here translated into English (Williams 2001:3), “Keyboard Practice, consisting of an Aria with diverse variations for the harpsichord with 2 manuals prepared for the soul’s delight of music-lovers”.

The epigraph of the music being “prepared for the soul’s delight of music-lovers” is nearly identical to the title of the other three books of *Clavierübung* (Keyboard Practice) previously published by JS Bach. The actual date of composition is postulated to be between 1739 and 1741 (Wolff 1977, Boyd 1999, Williams 2001), but Fischer (2003) states that Bach had already begun work on the Goldberg Variations in 1736. The Aria was written around 1725 and appears in the *Notenbüchlein für Anna Magdalena Bach* (Little Notebook of Anna Magdalena Bach) (Salter 1987), with the remainder of the Goldberg Variations being completed by 1741. Boyd (1999), however, hypothesises that the Aria was notated in the *Notenbüchlein* after the work was published in 1741.

Despite the fact that neither the work’s original title page nor Bach’s obituary bears the designation, the Goldberg Variations are often referred to as Part IV of the *Clavierübung*. This stems from the Bach Society edition (BG vol. III) grouping it with the three previous volumes of the *Clavierübung* in one single publication in 1853 (Williams 2003). The Goldberg Variations represent Bach’s return to the keyboard variation form since the *Aria variata alla maniera Italiana* BWV 989, composed in 1709.

The designation “Goldberg Variations” came into use in the 19th century due to a story in Johann Nikolaus Forkel’s 1802 biography on JS Bach (Wolff 1977). The Russian ambassador to the Saxon court, Count Keyserlingk, employed a musician by the name of Johann Gottlieb Goldberg. The Count

was often unwell and then had sleepless nights. On these occasions, Goldberg had to spend the night in an adjoining room so that he could play something to him during this sleeplessness. The Count once remarked in Bach’s presence that he would very much like to have some keyboard pieces for his Goldberg, of a character so gentle and somewhat merry that he could be a little cheered up by them in his sleepless nights. Bach believed that he could best fulfil this wish with some variations, which until then he had held to be a thankless task because of the basic harmony always being the same (Forkel 1802:51-52).

While many authors (Malcolm 1983; Salter 1987; Kitchen 1993; Hewitt 2000; Wilkinson 2000; Riley 2009; Simeone 2011) cite this story and thus perpetuate its popularity, there are some points of contention: there is no formal dedication to the Count on the title page of the work; Goldberg would have been 14 years old when the work was completed in 1741, calling into question whether he would have been able to cope with the technical demands of the work; and according to Riley (2009) the golden goblet which was supposedly gifted to Bach by the Count was not mentioned in the inventory of Bach's estate.

However, Boyd (1999) suggests that the story does have some plausibility as it could be possible that Goldberg developed a reputation as a performer of these pieces as he was a talented pupil of Bach and a virtuoso performer. Williams (2001) postulates that Bach had in mind one of his own sons - Wilhelm Friedemann - as the virtuoso who could perform the demanding set of variations. He goes on to suggest that when JS Bach visited Dresden in 1741, he brought with him and presented to the Count a signed copy of the Goldberg Variations which was on sale at the time. Wolff (1977:III) corroborates Williams' theory by stating that the "true essence" of Forkel's story could stem from the dedication of a copy of the work to the Count on one of Bach's Dresden visits in 1741.

No matter in what circumstances the Goldberg Variations was composed, they constitute "one of the great masterpieces of the high Baroque, and represent both the summit of Bach's keyboard-writing and the apotheosis of the variation form" (Malcolm 1983:2). Such high praise for the Goldberg Variations from numerous authors (Tureck 1988; Wilkinson 2000; Riley 2009) is not only due to the work's length and virtuoso technical demands, but it is also due to the inclusion of a variety of Baroque keyboard styles and the symmetrical structure of the work as a whole.

Williams (2003:44) claims an entire catalogue of binaries which preside over the Goldberg Variations. There are two halves to the entire composition - one of which beginning with the Aria and the other which uses the Aria as its conclusion. Each movement is in two exact halves of 16 bars with each half being played twice due to the repeat signs. The composition uses the two keys of G major and G minor and it was originally written for a harpsichord with two manuals. The phrase structure can be divided into two bars; four bars for sub-phrases of melody and harmony leading to imperfect cadences; and eight bars for phrases of melody and harmony which progress to perfect cadences. There are 16 movements in each half of the work, bringing the total number of pieces to 32 which were originally notated on 32 pages by JS Bach. The bass theme of the Aria consists of 32 bars (or notes) with all movements being written in 16 or 32 bars - both in the case of Variation 16.

The present writer has drawn up the following table to place the linear, symmetrical and cyclic progression of the Goldberg Variations into perspective:

Table 1: The overall structure of the Goldberg Variations

Movement	Time Signature	Keyboard	Voices	Subtitle by Bach
Aria	3/4	1 manual	3 voices	
Var. 1	3/4	1 manual	2 voices	
Var. 2	2/4	1 manual	3 voices	
Var. 3	12/8	1 manual	3 voices	Canon at the unison
Var. 4	3/8	1 manual	4 voices	
Var. 5	3/4	1 or 2 manuals	2 voices	
Var. 6	3/8	1 manual	3 voices	Canon at the second
Var. 7	6/8	1 or 2 manuals	2 voices	al tempo di giga
Var. 8	3/4	2 manuals	2 voices	
Var. 9	C	1 manual	3 voices	Canon at the third
Var. 10	♩	1 manual	4 voices	Fugetta
Var. 11	12/16	2 manuals	2 voices	
Var. 12	3/4	1 manual	3 voices	Canon inversus at the fourth
Var. 13	3/4	2 manuals	3 voices	
Var. 14	3/4	2 manuals	2 voices	
Var. 15	2/4	1 manual	3 voices	Canon inversus at the fifth andante
Var. 16	♩ 3/8	1 manual	2-4 voices 2-3 voices	Ouverture (followed by stretto fugue)
Var. 17	3/4	2 manuals	2 voices	
Var. 18	♩	1 manual	3 voices	Canon at the sixth
Var. 19	3/8	1 manual	3 voices	
Var. 20	3/4	2 manuals	2 voices	
Var. 21	C	1 manual	3 voices	Canon at the seventh

Movement	Time Signature	Keyboard	Voices	Subtitle by Bach
Var. 22	♩	1 manual	4 voices	alla breve
Var. 23	3/4	2 manuals	2-4 voices	
Var. 24	9/8	1 manual	3 voices	Canon at the octave
Var. 25	3/4	2 manuals	3 voices	adagio
Var. 26	18/16 & 3/4	2 manuals	3 voices	
Var. 27	6/8	2 manuals	2 voices	Canon at the ninth
Var. 28	3/4	2 manuals	2-4 voices	
Var. 29	3/4	1 or 2 manuals	2-6 voices	
Var. 30	♩	1 manual	4 voices	Quodlibet
Aria				

The work begins with an Aria in the style of a *Sarabande*, whose ground bass and its implied harmonies form the foundation upon which the ensuing 30 variations are based. Therefore, the work could actually be considered as a type of *Chaconne* broken up into 30 individual variations. With the Aria being restated at the end of the work, it creates a grand cyclical journey in which the beginning is the end. All of the variations are in the key of G major, except for Variations 15, 21 and 25 which are in G minor.

While it could be easy to get lost in the lengthy musical journey, Bach helps both the listener and performer by writing what the present writer refers to as ‘signposts’ in the form of a series of canons. The canons create further symmetry in the Goldberg Variations as they are to be found at each third variation. As the set progresses, the canons increase systematically in ascending intervals. Therefore, the first canon is at the unison, the second canon is at the interval of a second and so on up to the ninth canon at the interval of a ninth.

Example 3: JS Bach, *Goldberg Variations*, Variation 3 Canon at the unison bars 1 - 2. Soprano voice marked with a circle and the alto answer at the unison indicated with an arrow (Dreyfus & Wolff 1996)



Example 4: JS Bach, *Goldberg Variations*, Variation 6 Canon at the second bars 1 - 5. Alto voice marked with a circle and the soprano answer at the second indicated with an arrow (Dreyfus & Wolff 1996)



Wilkinson (2000:2) regards the structure of the canons as “a *tour de force* of compositional ingenuity”, concurred by Kitchen (1993:2) as “a tremendous compositional feat”. The present writer likens the compositional structure of the Goldberg Variations to that of a building: the Aria being two giant columns which bookend the work and the canons providing further structural integrity by way of smaller pillars which help support the grand design of the music.

The canons can also be viewed as helping to categorise the overall structure of the work into 10 groups of 3 variations. The symmetrical order of this would be canon - free variation - toccata. The ‘free variations’ represent Baroque genre pieces such as Fughetta, French Overture and Giga. The toccatas are virtuoso compositions often requiring deft finger work, hand crossings and other technical devices. However, it must be stated that Bach does not always stick to this ‘mini-structure’ of threes as it only commences from Variation 3 (canon at the unison) and it frees itself in Variations 28 and 29 with two succeeding toccatas. Also, instead of a canon at the 10th for Variation 30, Bach writes a Quodlibet or “what you will” in which two popular German tunes of contrasting character are simultaneously combined with “pure knockabout humour” (Riley 2009:4):

“Ich bin so lang nicht bei dir g’west.
Ruck her, ruck her, ruck her.”
(*I’ve not been with you for so long.
Come closer, closer, closer.*)

and

“Kraut und Rüben haben mich vertrieben.
Hätt, mein Mutter Fleisch gekocht,
so wär ich länger belieben.”
*(Cabbage and beets drove me away.
Had my mother cooked some meat then I'd have stayed much [sic] longer.)*¹

According to Smith (1992) and Hewitt (2000), this kind of musical joke was performed by the extended Bach family once a year at their family reunion where they would begin their festivities with a chorale and end in contrast with an improvised quodlibet, “the words of which were purposely humorous and often very naughty” (Hewitt 2000:9). Smith states how the German saying “Durcheinander wie Kraut und Rüben” can also mean “in complete confusion”. He goes on to write that “some commentators believe this more idiomatic translation is clear evidence of Bach’s own (intentional) hearty laughter when recollecting the complexity of all that precedes his quodlibet” (1992:5).

While the dissection of the Goldberg Variations into 10 groups of 3 variations seems to be the most popular (Williams 2001; Riley 2009), Perahia (2000:9) states that “the number 8 is more significant in terms of the dramatic contents”. He writes that the Aria is divided into 8-bar sections which is reflected in the structure of the work as a whole. He counts the Aria as number one with the first break occurring after the eighth piece, Variation 7, marked “tempo di giga” which is a dance that usually concludes suites. The break in the Aria at bar 16 is reflected by the break after Variation 15, the sixteenth piece played, as this precedes the French Overture which marks the halfway point and a new beginning. Perahia refers to Variation 24 as “calming [and] pastoral...as if the piece were entering its final phase” (2000:10). He states that no more canons should be expected after this one as the intervals after the octave will be the same as what has come before - canon at the ninth equals the second, canon at the tenth equals the third etc. However, one could argue that the canon at the octave is a repeat of the canon at unison and therefore the cycle may be said to overshoot. Both Boyd (1999) and Williams (2001) suppose that the work was originally conceived with only 24 variations built around the first eight canons. Perahia does however agree with most scholars that there is a crescendo in the music from Variation 26 culminating in Variation 30 with the four-part canonesque Quodlibet. While Perahia’s division of the work in 8 movements per section is unique, Cory Hall’s analysis of the Goldberg Variations reveals a more complex symmetrical pattern intended by the composer as evidenced in his manuscript.

According to Hall (2005) one oversight in all the editions of the Goldberg Variations has to do with the fact that a fermata has been placed at the end of each variation. He argues that Bach’s

¹ English translation by Angela Hewitt. The present writer acknowledges that there may be grammatical discrepancies in the German texts, however these have been quoted exactly from the source (Wilkinson 2000).

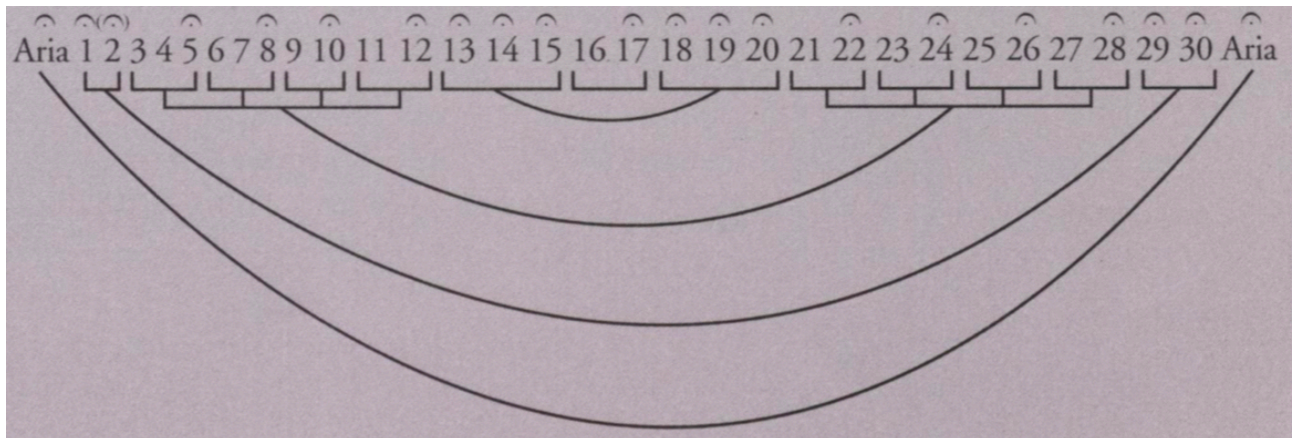
autograph manuscript from 1741 shows that not every variation ends with a fermata, but rather that the fermatas Bach wrote indicate a symmetrical arrangement of single and grouped variations.

Example 5: JS Bach, *Goldberg Variations*, Variation 4 bars 30 - 32 (Bach 1741)



The circle indicated in Example 5 illustrates the absence of a fermata at the end of Variation 4 and that Bach writes a symbol which seemingly indicates an *attacca* (continue immediately) to the next variation. This symbol can also be found at the end of Variations 3, 7, 9, 11, 16, 21, 23, 27 and 30. Fermatas can be found at the end of the Aria and Variations 1, 5, 8, 10, 12, 13, 14, 15, 17, 18, 19, 20, 22, 24, 26, 28, 29 and 30. Variation 30 is the only movement which has both a fermata and an *attacca* symbol, while Hall proposes that Variation 2 should have a fermata for complete symmetry as indicated below:

Example 6: Cory Hall's symmetrical groupings implied by Bach's fermatas (2005:37)



It becomes clear from Example 6 how the complex symmetrical structure is organised according to groupings of single and grouped variations, based on the fermatas Bach wrote in the score. It also illustrates how the midway point of Variations 16 and 17 act as a mirror due to the pattern of groupings being the same thereafter as they were before. It is the opinion of the present writer that this highly advanced method of organisation and mathematical precision was intentional on the part of the composer and cannot be ignored by performers as it brings about a deeper sense of cohesion and understanding of the music. Hall argues that this symmetrical arrangement contains

evidence of tempo relationships, but before pursuing his idea it is important to first analyse Bach's own tempo markings.

Bach's tempo indications in the score of the Goldberg Variations are sparse, if not nearly non-existent. Before Bach's *Handexemplar* of the Goldberg Variations was discovered in 1974 (Wolff 1976), no tempo markings were to be found in scores which were faithful to Bach's notation. Although the title of 'Aria' is not a tempo marking, it does provide a clue to the character of the music which encourages the performer to choose a tempo which allows the long melodic line to sing and for the demisemiquavers to be played unhurried. The performer should also take into account the audibility of the sustained bass line and harmonic progressions when determining an appropriate tempo, as these form the fundamental basis of the entire work.

The Aria contains the most ornaments written by Bach from any of the movements in the Goldberg Variations. They include mordents, compound trills, turns, slides, trills and appoggiaturas of varying lengths. With the character of this movement being that of a stately and introspective *Sarabande*, a suitable tempo would need to be chosen by the performer for the ornaments to be played without obstructing the mood of the music. The present writer has found that through practice at the piano, the tempo of the Aria is largely determined by the various types of trills which serve as melodic decoration in this movement. If the tempo is too fast, the trills create a brilliance in the music which can impede upon the peaceful atmosphere of the music. Furthermore, a slower tempo allows the ornaments to be played with greater expression and it provides space for anticipated ornaments which may be preferable in certain instances. These will be discussed in more depth in the proceeding chapters.

The first actual tempo indication by Bach in the *Handexemplar* appears at Variation 7 marked *al tempo di Giga*. Wolff (1976) supposes that Bach wanted to clarify any ambiguity from the 6/8 time signature as without the tempo marking, the variation could be interpreted as a *Siciliana*. This is evidenced by artists such as Gould (1981), Kempff (1970), Egarr (2005) and Tipo (2007) recording the variation in a *Siciliana* style, despite some of their recording dates being after the discovery of the *Handexemplar*. The choice of playing this movement in the manner of a *Siciliana* has an effect on the ornamentation chosen by the performer. Initially, Gould (1955) selects a tempo which is close to that of a *Gigue*, though the character of the music is not as lively as one would expect. In this recording he plays short *Pralltrillers* and mordents which bring energy to the music. However, in his 1981 recording he adopts a slower tempo and fully embraces the *Siciliana* character, playing his *Pralltrillers* much longer with more alternations. In this recording he also slows down the mordents in bars 9 and 10 to semiquavers, integrating the mordents into the melody. A more comprehensive analysis of recording traditions will be discussed in Chapter 3.

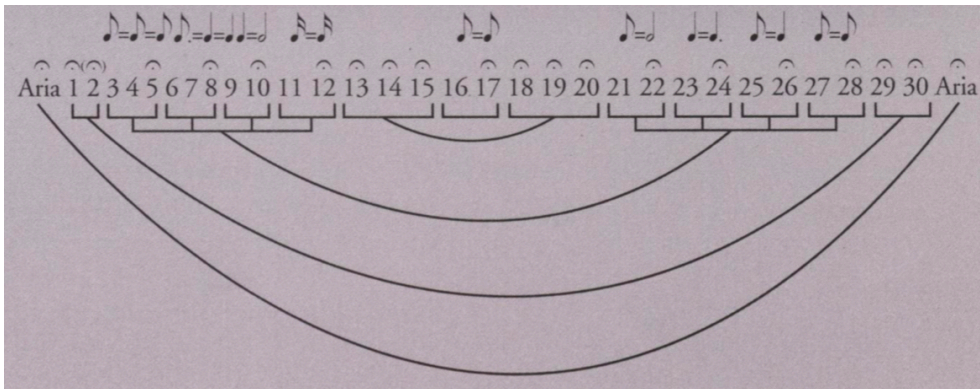
The third and final tempo marking by Bach, also discovered in the *Handexemplar*, is at Variation 25 marked *adagio*. Unlike Variation 7's tempo marking, this one does not provide any new insight into the music with Williams (2001:81) stating that

The 'adagio' mark added by the composer in his copy only confirms what must always have been obvious, that this is a slower and more intense movement than the *coloratura* variation No. 13 or any other moment in the *Goldberg*.

This tempo marking may also have been inserted by Bach to prevent performers from playing it too slowly and choosing a tempo closer to *lento* or *largo* which could potentially interrupt the flow of the music, causing it to stagnate. The choice of tempo has an effect on the ornamentation in this movement, predominately with regards to the execution of the appoggiaturas. As will be further detailed in Chapter 3, many pianists (Barenboim, Gould, Hewitt, Leonhardt, Nikolayeva, Perahia, Schiff) choose to play the first appoggiatura in bar 1 as a very short note, similar to an acciaccatura. This does not give the ornament much melodic importance, though the performers' tempi are all at the *adagio* mark. Gavrilov (1993), however, elects to play this variation extremely slowly with a *largo* tempo providing him the time to play the same appoggiatura as a hemidemisemiquaver fully incorporated into the melody.

In the large keyboard works by Bach - the French Suites, English Suites, Partitas and *Das Wohltemperierte Clavier* - tempo markings by the composer are a rarity. For example, there are a total of four tempo indications in the entire 96 movements of *Das Wohltemperierte Clavier*. The lack of tempo markings in the keyboard works by Bach, including the Goldberg Variations, gives the performer a large amount freedom in terms of interpretation. This has allowed for some extreme tempo choices in the Goldberg Variations by performers such as Gould (1955; 1981) and Gavrilov (1993). These two performers opt to play the quick toccata variations *presto possibile* (as fast as possible) seemingly ignoring other alternative fast tempo choices such as *allegro* or *allegro vivace*. In the slower variations they often go to the other extreme playing as slowly as possible. This is particularly evident in Gavrilov's (1993) performance of Variation 25 which takes 11'05", the longest of all the performers who are analysed in Chapter 3. This all or nothing approach to tempi choices was a large motivation for Hall's study on the Goldberg Variations (2005:36), which led him to propose the idea of tempo relationships implied by Bach's fermatas.

Example 7: Cory Hall's Tempo Relationships implied by Bach's fermatas (2005:37)



Considering the lack of tempo markings in the score by Bach himself, the tempo relationships proposed by Hall allows the performer to connect particular variations together, based on the symmetrical structure of the work. This not only prevents the variations becoming disparate from one another, but it also helps bring the work into a kind of metric harmony which further unifies the grand cycle of variations. Tempo relationships assist the performer in moderating his/her tempi choices which in turn have an effect on ornamentation. Using the first group of three variations by Hall - Variations 3, 4 and 5 - as an example, the tempo of toccata Variation 5 would be moderated by the preceding two variations which would give the performer more time to execute the ornaments. This can result in more alternations for trills, quicker mordents and time for anticipated *Schnellers* and additional ornaments by the performer.

A well-rounded performance of the Goldberg Variations would showcase the musical diversity of each variation, while still maintaining a sense of unity within the music. This can become difficult to achieve due to the work's overall length of more than 75 minutes when performed in full, making it as much of a *tour de force* for the listener as for the performer. Hall's proposal of tempo relationships not only allows for great contrasts and variety between variations, but brings with it a broader sense of cohesion with variations no longer running the risk of becoming isolated due to extreme tempo choices by the performer. The present writer has found this idea to be particularly helpful when learning the work and presenting it from a fresh perspective as one can be easily influenced by the choices made from performers such as Gould, Perahia and Schiff, thus limiting one's own rendition to a copy of theirs.

According to Hall's research the default *allegro* in Bach's time was metronome marking 84 for a crotchet and he cites Robert Marshall as being in agreement with this figure who put Bach's "tempo ordinario at about metronome 80" (2005:37). Hall states that while Bach's *allegro* of metronome 84 is too slow by modern standards, he disapproves of variations which contain continuous semiquavers such as Variations 5, 8 and 17 being played as fast as possible in the

style of “Liszt or Chopin etudes” (2005:37). Therefore, a mindfulness and temperance of tempo is required by the modern performer to play the Goldberg Variations in both a historically accurate style and simultaneously with a more contemporary approach.

Hall uses Variation 1 as a case for extreme tempo choices by performers which in his opinion is now played too slowly due to a possible reaction to the “much too fast” tempo of Gould (2005:37). Hall compares Variation 1 to the *Courante* from JS Bach’s French Suite no. 5, claiming the two to be nearly identical due to the 3/4 time signature and perpetual semiquaver motion. According to his research this type of courante is the fastest of all simple-meter dances and had a usual *presto* tempo of crotchet = 108.

By using Variation 1 as the *presto* benchmark, Hall suggests that Variations 5, 8 and 17 cannot be played faster than crotchet = 108 as this was the fastest tempo of Bach’s simple-meter styles. The present writer has found Hall’s suggestion to be an appropriate one in practice. The tangled position of the hands in Variation 17 presents an additional technical problem which is not encountered to this extent in Variation 1. Therefore, a conscientious tempo choice for Variation 17 is necessary to provide the performer time to execute the toccata comfortably and accurately. A tempo which is too fast could cause this movement to become technically hazardous and would have an effect on the musical character, possibly blurring the content altogether. This rationale calls into question the *need* to approach particular variations at a blistering pace. If the musical character can be fulfilled and communicated successfully at a slower tempo (though still fast), then it seems the desire to play as fast as possible is an egotistical one.

Hall prefers to view the true fast variations as those whose quick tempos result from the presence of triplet semiquavers and demisemiquavers written in the score - Variations 14, 20, 23, 28 and 29. In other words, the metronome speed of a crotchet chosen by the performer should not be the main prerequisite for determining whether or not a variation is fast. This thinking by Hall caused the present writer to re-examine the general view of what ‘fast’ really means in music and where such an interpretation of the tempo is applicable, particularly in the Goldberg Variations. If quicker notes are written in the score, one does not have to play them as fast as possible in order to achieve a brilliant, virtuoso effect. A slower tempo than “as fast as possible” can bring greater clarity to the articulation, phrasing and ornamentation, thereby enhancing the virtuosity and character of the music on multiple levels.

Another case in which Hall explores tempo relationships and how they affect the interpretation of movements is with Variation 25 and Variation 26. According to Bach’s autograph manuscript there is no fermata between these two variations, therefore Hall recommends a tempo relationship of

quaver = crotchet for these two movements. He claims that this will make it “impossible to play Variation 25 too slow and Variation 26 too fast” (2005:37), again citing Gould’s (1955 & 1981) tempo choices as an example. Considering the *adagio* marking of Variation 25, a *ritardando* played at the end of this movement is unnecessary and would disturb the seamless flow of the quaver-note pulse to the crotchet-note pulse of Variation 26. For further cohesion between these two movements one can begin Variation 26 at the soft dynamic level which concluded Variation 25, which results in Variation 26 having the character of an *Air* after the *Sarabande* style of Variation 25. The present writer found that the link of quaver = crotchet between these two variations has an effect on ornamentation, particularly in Variation 26. The moderated tempo allowed the time to insert additional trills during repeats, heightening the excitement within the variation after the initial statement of each section. By connecting the tempo of Variation 26 to that of Variation 25, it prevents Variation 26 from being played too fast, giving the double toccatas of Variations 28 and 29 room for extra brilliance and musical exhilaration.

The multiple symmetries which form an integral part of the Goldberg Variations’ structure cannot be dismissed as a coincidence. It is clear from Bach’s own manuscript that he did not write a fermata at the end of each variation which presupposes that certain movements are inherently linked and/or grouped together. This grouping of variations has an effect on how the character of each movement is understood and interpreted by the performer as they can no longer be viewed as separate entities. Bach’s title of *Aria mit verschiedenen Veränderungen* (Aria with diverse variations) gives the performer a clue as to how to approach the characterisation of the movements: with diversity. Resorting to extreme tempo choices (whether slow or fast) or pauses at the end of each movement for the sake of diversity can cause the grouping of variations to become disconnected and thus break the symmetrical construction of the work. Hall’s (2005) suggestion of tempo relationships not only unites the work as a whole, but also the smaller groups within it. This encourages the performer to no longer rely on tempo for character contrasts, but rather to experiment with alternative forms of musicality - such as articulation, dynamics and ornamentation - to bring about diversity. Tempo has a particularly large effect on ornamentation as it either provides or restricts the amount of time that enables the player to execute certain embellishments. It can determine how many alternations of a trill are possible, whether an ornament can be played on or before the beat and what types of additional ornaments can be added by the performer. Therefore, tempo ultimately determines the rhythmical possibilities of how an ornament can be executed.

Chapter 2

Opposing Views on Ornamentation in JS Bach's Keyboard Works

This chapter contains a broad subject area which could easily lead to a dissertation on its own. The aim of this chapter, therefore, is to present a concise overview of various approaches to ornamentation in Bach's keyboard music. His "*Explication unterschiedlicher Zeichen, so gewisse Manieren artig zu spielen andeuten*" (hereafter *Explication*) will be placed into context showing how the examples contained therein cannot always be applied where the respective ornament appears in musical scores. Various authors' rules on Bach ornamentation will be presented together with more liberal approaches on the matter. CPE Bach's *Versuch über die wahre Art das Clavier zu spielen* (1753) (hereafter *Versuch*) will not be taken into consideration as it was more focused on the interpretation of ornaments in the *galant* style. Different approaches to the execution of specific ornaments will be discussed in order to highlight the diversity which exists in the interpretation of Bach's ornaments. Further diversity in approaches to ornamentation by performers will be analysed in greater detail in Chapter 3. The preference for particular executions of ornaments by the present writer, specifically in the Goldberg Variations, will be discussed in Chapter 4.

2.1 Ornament tables

When it comes to deciphering the ornamentation symbols in JS Bach's keyboard works, it is common for musicians (Boyd 1999) and editors to refer to the one piece of evidence left to us by the composer himself - his *Explication*. The full title translates to the "Explanation of various symbols, suggesting the way in which certain ornaments are to be properly played" (Kochevitsky 1974:25). Kochevitsky points out the German word "*andeuten*", meaning suggesting, as the most important word in the title as it does not imply an *exact* instruction. It is important that Bach's *Explication* be put into context as it was neither a stand-alone publication, nor was it included as a preface to any of his published keyboard works. Rather, the *Explication* was written in 1720 for his then 9-year-old son, Wilhelm Friedemann Bach, and appeared in the published *Klavierbüchlein für Wilhelm Friedemann* by Bach. According to Kochevitsky (1974) and Neumann (1993), it serves as an introduction to ornaments for a child and its oversimplification is inadequate for the interpretation of Bach's "exceptionally complex melodic-ornament[s]" (1993:327).

Example 8: JS Bach, *Explication* (Dreyfus & Wolff 1996)

The image shows a musical score for JS Bach's *Explication*, consisting of 13 numbered measures. Each measure is accompanied by a keyboard part. The ornaments and their descriptions are as follows:

- 1: *trillo*
- 2: *mordant*
- 3: *trillo u. mordant*
- 4: *cadence*
- 5: *doppelte cadence*
- 6: *idem*
- 7: *doppelte cadence und mordant*
- 8: *idem*
- 9: *accent steigend*
- 10: *accent fallend*
- 11: *accent u. mordant*
- 12: *accent u. trillo*
- 13: *idem*

The *Explication*, though an instructive tool for ornamentation, is incomplete in listing all of Bach's ornaments as it lacks the slide, the appoggiatura written as a small grace-note (*Vorschlag*) and alternative trill symbols employed by Bach. A further factor to take into consideration is that the table is not entirely of Bach's own invention. Dolmetsch (1915) and Neumann (1993) state how Bach became familiar with the French forms of ornamentation through d'Anglebert's 1689 ornament table, which Bach wrote out early on in his career. Bach reproduced the *Cadence* and *Autre* (Example 9 (a) & (c)) of d'Anglebert's models in his own *Explication* under the terms *doppelte cadence*.

Example 9: J. d'Anglebert, *Pièces de Clavecin 1689* (Dolmetsch 1895:162)

The image shows a musical score for J. d'Anglebert's *Pièces de Clavecin 1689*, consisting of five numbered measures. Each measure is accompanied by a keyboard part. The ornaments and their descriptions are as follows:

- (a): *Tremblement simple.*
- (b): *Tremblement appuyé.*
- (c): *Cadence.*
- (d): *Autre.*
- (e): *Tremblement et Pincé.*

On Bach's *Explication*, Neumann (1993:327) writes that his ornament table

has contributed mightily to the rigidification of his ornaments by modern performers who, in awe of its autograph authenticity, take the models strictly at face value whenever the respective symbols appear in the score. The table tells us that the graces may have the shapes indicated, but not that they must have them.

Therefore, if Bach's ornaments do not have to adhere to one specific shape, how does one interpret his symbols of ornamentation? Firstly, it may be necessary to understand what ornaments are and the function they serve.

In its most simplified definition, ornaments are a form of shorthand whereby a symbol represents a specific pattern of notes to be played, which Kochevitsky (1974) likens to the symbols of figured bass. Boyd (1999:350) defines ornamentation in two ways: "to refer to the symbols a composer employed to indicate specific ornamental formulae; and to refer to free embellishment that might be improvised by the performer or indicated prescriptively by the composer". Neumann (1989) views the symbols of ornamentation as a superior notational device, as opposed to written out notes, because they allow the ornaments to be flexible in shape, thereby not confining them to one specific design. This view adheres most closely to the history of ornaments which, according to Neumann (1989), are born out of improvisation and are thus inherently free in nature. Kreutz states that "[t]he German practice of embellishment in Bach's time was very far from uniform" (Kochevitsky 1974:26) which is corroborated by the author Johann David Heinichen who states "[t]he...ornaments are countless and they change according to the taste and with the gaining of experience" (Kochevitsky 1974:26). Kochevitsky himself states that it is more than likely that Bach played ornaments in his own music differently from time to time, while Irmer writes that "Bach intended the ornaments merely as a suggestion. When he laid stress on a particular ornament, he often wrote it out in full" (1974:27). Dolmetsch has a more restricted point of view on Bach's ornamentation stating that they

agree entirely with the general practice of his time. He did not innovate anything or fail to employ all that was good in that direction. It is impossible, therefore, to justify anything about the exception of shakes [trills] or other ornaments in his music (1915:168).

With regard to the function of the ornament, Neumann (1989:123) states that it serves multiple functions, namely to

provide variety, to add grace and elegance, to soften hardness, to round angularity, to smooth, to liquefy. In order to do so they need to be rendered with flexibility and a touch of improvisatory freedom. It is most emphatically not the function of ornament[s] to harden, to stiffen, to regularise the musical texture.

Neumann states that modern scholars and performers make two mistakes when using ornament tables for all their answers:

1. They misunderstand the abstract nature of ornaments' design, taking the models at their literal, mathematical face value every time the symbols appear. This results in them using the table as "prefabricated spare parts mechanically inserted" (1989:124) which in turn results in a machinelike execution which is in total contradiction to the very nature and function of ornaments.
2. They apply ornament tables from one composer to another, regardless of their separation by time, style, region or nationality. "To take somebody else's patterns, be it Philipp Emanuel [Bach], or Couperin or whoever, and apply them to Bach's music is a reckless gamble at best" (Neumann 1989:124).

In the Wiener Urtext edition of the Goldberg Variations, Dreyfus states that "[w]ith the exception of the 'Schleifer'...all of the ornaments used in the Goldberg Variations are explained in Bach's *Klavierbüchlein für Wilhelm Friedemann*" (1996:9). It would therefore be Neumann's view that Dreyfus has made an error by expecting that all the answers to the ornaments in the Goldberg Variations are contained within Bach's *Explication*. One instance in the Goldberg Variations where one could interrogate Dreyfus' statement regarding the exact use of Bach's *Explication* would be the following:

Example 10: JS Bach, *Goldberg Variations*, Variation 5 bar 17 (Dreyfus & Wolff 1996)



Variation 5 is the first of the toccata-style variations and requires a fast tempo. It has a constant running semiquaver pattern that moves between both hands which adds to the brilliant character of this movement. If one was to play the ornament on the third beat of bar 17 (right hand) as per Bach's *Explication* (Example 8 no. 8), it would require 12 demisemiquavers to be played in the time of a crotchet, which becomes practically impossible at the required tempo. It also calls into question whether or not Bach forgot to place a dot after the crotchet in number 8 of his *Explication*, as d'Anglebert notated it in his *Cadence*. However, even if Bach meant to write a dotted crotchet in number 8 of his *Explication*, it would not equal the value of the crotchet in the above example.

Kirkpatrick (1938) takes ideas for ornamentation in the Goldberg Variations from multiple composers: CPE Bach, Couperin, d'Anglebert, Marpurg, Quantz, St. Lambert and Türk. He refers to their books as being “far more fruitful and adequate sources of information for Bach ornamentation” (1938: xi) in comparison with Bach’s own *Explication*. As previously stated, this is something which Neumann is specifically against, pointing out that “We must not...look for answers to the galant mid-century treatises, notably those of C.P.E. Bach, Quantz, Marpurg and Agricola” (1993:326) when it comes to understanding Bach’s ornamental style. He further notes that the writings of CPE Bach, in particular, should not be applied to JS Bach as they reflect the galant style which he (JS Bach) chose to ignore. Badura-Skoda on the other hand writes that “the Versuch is...one of the most important sources for our understanding and interpretation of 18th century music, and in particular the works of Johann Sebastian Bach...” (2013:114).

Noting the dangers of using ornament tables interchangeably and haphazardly, Neumann suggests that to truly understand Bach’s ornamental style, his scores and works themselves should be the primary source of investigation, in particular his ornamental slow movements. Badura-Skoda agrees with Neumann’s stance stating that “[t]he most important source for the execution of J.S. Bach’s ornaments is, of course, Bach himself” (2013:114). According to Neumann (1993), Bach always wrote out the *passaggi* (cadenzas) or coloraturas in his slow movements in full, unlike Corelli or Purcell. He advises that when there are slow passages in demisemiquavers by Bach they will be ornamental in nature. The same can be applied to semiquavers in an *andante*, *largetto* or more flowing tempo. By looking at the slower movements in the Goldberg Variations, one can extrapolate written out ornaments that are not in Bach’s *Explication*. One such example lies in Variation 13² where Bach uses turns all beginning on the main-note, as opposed to his *Explication* where the turn is written starting from above. This is also in contradiction of Tovey’s instruction (1924:18) that in Bach’s music a turn must never be played on the main-note.

Example 11: JS Bach, *Goldberg Variations*, Variation 13 bars 1 - 3 (Dreyfus & Wolff 1996)



²Even though there is no tempo indication provided by Bach for this variation, the ornamental writing in demisemiquavers and its placement before the toccata Variation 14 warrants a slower tempo. This is reflected in nearly all of the performances discussed in the proceeding chapter excepting Gavrillov (1993) who plays this variation at a brisk tempo.

Neumann (1993) also advises one to look at Bach's early keyboard compositions (1700 to 1715) for insight into his ornamental style. Perhaps the most significant keyboard work composed during this time are the six English Suites BWV 806 - BWV 811. They represent a development in Bach's compositional style especially when one compares the first and last suites. In this music we find ornaments which are not included in Bach's *Explication* such as the slide (12a) and long main-note trill written as a *tr* (12b):

Example 12a: JS Bach, *English Suite no. 5*, Prelude bars 14 - 15 (Henle 1971)



Example 12b: JS Bach, *English Suite no. 6*, Gigue bars 11 - 12 (Henle 1971)



2.2 Rules on ornamentation

When it comes to seeking answers on Bach's ornamentation outside of his own *Explication* and musical scores, there are scholars who have created a list of rules that they believe should be followed by performers. However, Kreutz, Marpurg and Mattheson (Kochevitsky 1974) are against the formulation of rules as they state that ornaments change according to taste, practice, experience and judgment. While Kochevitsky himself mostly agrees with their and Neumann's flexible approach to ornamentation, he claims that some basic rules of ornamentation existed in Bach's time (1974:28):

1. Bach ornaments are played, almost without exception, *on* the beat, thus taking their time from the following note
2. Bach ornaments are mainly diatonic

3. Ornaments should not change or blur the melodic outline of a composition
4. Ornaments should not alter the harmonic structure of a composition
5. Ornaments should not, as C.P.E. Bach warned, “[corrupt] the purity of the voice leading”. Marpurg goes on to state: “...one must no more introduce faulty progressions...than one may count on an [ornament] to save consecutive fifths”.
6. All ornaments should be deciphered *in context*.

Kochevitsky does, however, state that it is important to know when to break this list of rules.

Tovey (1924) claims that there are three rules which encompass all of Bach’s ornaments, his first being the same as Kochevitsky’s:

1. They begin on the beat.
2. They begin from the upper-note, never the main-note.
3. They never begin by repeating the preceding note.

Tovey states that rules 2 and 3 can contradict each other, particularly when the context involves a *Pralltriller* (which he uses as a synonym for the *Schneller*), and suggests that rule 2 is mainly applied to the trill.

Example 13: JS Bach, *Goldberg Variations*, Variation 7 bars 1 - 4 (Dreyfus & Wolff 1996)



In the above example the contradiction of Tovey’s rules 2 and 3 can be evidenced: if the ornament was to begin with the upper-note as per Tovey’s second rule, then it would begin by repeating the preceding note which is in violation of Tovey’s third rule. It seems the best solution in this instance would be to disregard Tovey’s second rule and begin the ornament on the main-note as a *Schneller*.

Neumann (1993) disagrees with the first rule of each scholar and provides numerous examples of different ornaments which he suggests are to be played before the beat. With this in mind, it is possible to flag up perhaps the most contentious of all Bach’s ornaments - the *appoggiatura*.

2.3 The appoggiatura

While Bach represented the appoggiatura as a hook symbol and short vertical line in his *Explication*, he would often write them out as small grace-notes of varying length (crotchets, quavers, semiquavers etc.). Kochevitsky (1994) states that Bach never used small notes with the oblique stroke through them (acciaccatura) as this form of notation was introduced after Bach's time. Dannreuther (1895) points out that the small grace-note notation is often misunderstood as the notes representing their actual value. Tovey (1924) claims that it is Bach's way of indicating the best possible value for each grace-note, albeit an approximate one. However, this claim is far-fetched as it becomes impossible to execute the appoggiaturas according to Bach's rhythmic notation without adding beats to the bar. Furthermore, why would Bach indicate a specific note value of an appoggiatura if it was to be played at its approximate value? Was Bach not a precise composer? Tovey also contradicts his own first rule on ornamentation by stating that appoggiaturas can be played between beats and that it should not be considered unnatural to the ear to do so.

Example 14: JS Bach, *Goldberg Variations*, Variation 13 bar 17 (Neumann 1993:330)

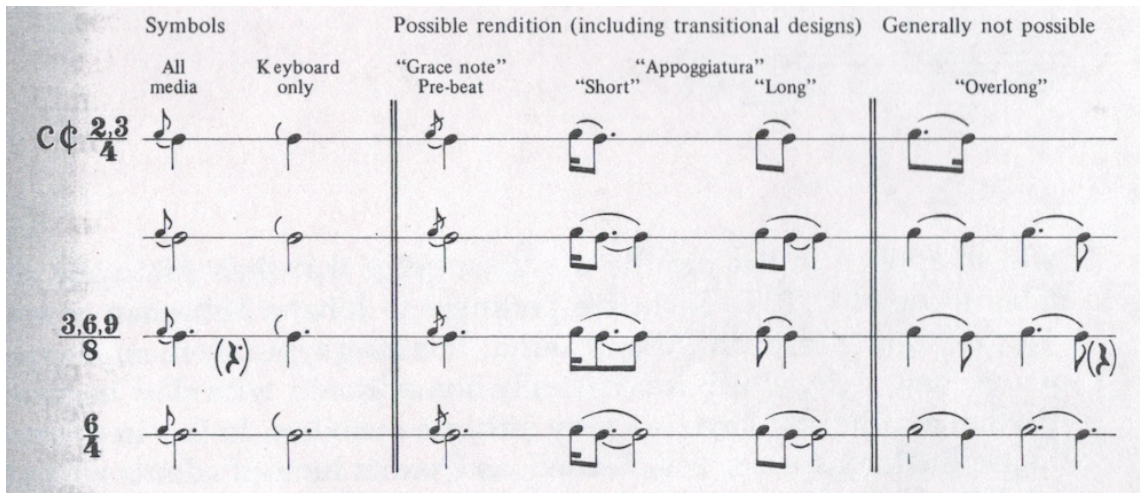


If the appoggiatura in Example 14 is to be played on the beat then it would result in parallel octaves, which is something both Neumann and Kochevitsky advise against as it interferes with the basic relationships of the voices. Busoni, in his 1915-edition of the *Goldberg Variations*, indicated that all the appoggiaturas in Variation 13 should be executed on the beat. However, in bar 17 of that variation he provided a written-out appoggiatura before the beat. In this instance he must seemingly have been aware of the open octaves that would ensue if these ornaments were to be played on the beat. Regarding the same variation, Dreyfus (1996) only comments on the appoggiaturas in bars 1, 2 and 4, stating that they should be played very short and on the beat. However, she claims that the appoggiatura in bar 6 is melodic and thus should be played expressively on the beat. It is uncertain why Dreyfus considers the latter appoggiatura to be melodic and not the others as the entire variation is lyrical, expressive and ornamental in nature.

According to Neumann (1993), Bach's appoggiaturas (or *Vorschläge*) range from the anticipated grace-note to an appoggiatura that can take on varying lengths. Neumann is of the opinion that Bach's appoggiaturas are relatively short and that the longer types - which became widely known

through the treatises on the galant style of the mid-18th century - should not be applied to Bach's music.

Example 15: The varying length of Bach's appoggiaturas according to Neumann (1993:327)³



Dannreuther (1895) agrees with Neumann in that Bach's appoggiaturas are more frequently short than long, while Kreutz (1952) claims that there is no precise rule in determining the length of the appoggiatura. Dannreuther, Kreutz and Neumann concur that appoggiaturas need to be considered according to melodic context, part writing, tempo as well as harmonic and rhythmic awareness. For example, if an on-beat execution of an appoggiatura turns a dissonance into a consonance, then it would be preferable to play the appoggiatura as an anticipation. Neumann (1993) states that when it comes to Bach's appoggiaturas, there are no rules which can provide ready solutions and that it would be more effective to analyse musical evidence in order to gain insight and guidance for their execution. While Kochevitsky states that the length of appoggiaturas in the mid-18th century is indeterminable and depend on the context as well as the performer's taste, he does list "generally acknowledged rules" (1975:27) when it comes to the long appoggiatura:

1. The appoggiatura normally takes half of the value of the main-note.
2. The appoggiatura takes two-thirds of the value of the main-note if the latter is dotted.
3. An appoggiatura attached to a note (dotted, or not) which is tied to another note takes the entire value of the first note, with the principal note sounding in the time of the second one.
4. An appoggiatura attached to a note followed by a rest takes the whole value of that note, the principal note being, then, executed in the time of the rest.

³ Many instances of Neumann's overlong appoggiaturas by performers will be discussed in the following chapter.

Kochevitsky states that the last rule was mentioned by both CPE Bach and Quantz, and does suggest caution in applying those composers' rules to the music of JS Bach. The above rules are applied by Badura-Skoda, Dolmetsch, Emery and Tovey to JS Bach's Prelude in E flat major BWV 876 from *Das wohltemperierte Klavier* (hereafter WTC) Book 2. These applications result in overlong appoggiaturas which is inadvisable according to Neumann (1993).

Example 16a: JS Bach, *Prelude in E flat major BWV 876*, WTC 2, bar 1 as written (Kochevitsky 1975:33)⁴



Example 16b: JS Bach, *Prelude in E flat major BWV 876*, WTC 2, bar 1 as interpreted by Eva and Paul Badura-Skoda (Kochevitsky 1975:34)



Example 16c: JS Bach, *Prelude in E flat major BWV 876*, WTC 2, bar 1 as interpreted by Dolmetsch (Kochevitsky 1975:33)



⁴ This ornament is an appoggiatura despite Kochevitsky's reproduction making it appear to be an acciaccatura due to the slur placed above it.

Example 16d: J.S. Bach, *Prelude in E flat major BWV 876*, WTC 2, bar 1 as interpreted by Emery (Kochevitsky 1975:33)



Example 16e: JS Bach, *Prelude in E flat major BWV 876*, WTC 2, bar 1 as interpreted by Tovey (Kochevitsky 1975:34)



While Dannreuther (1895) states that long appoggiaturas are rare in Bach's music, he encourages using them in instances when it creates a dissonant suspension, applying it in the same extract:

Example 16f: JS Bach, *Prelude in E flat major BWV 876*, WTC 2, bar 1 as interpreted by Dannreuther (1895:179)



It appears that Bodky (in Kochevitsky 1975) is one of the few scholars that has a similar approach to Neumann's preference for short appoggiaturas, applying it in this instance:

Example 16g: JS Bach, *Prelude in E flat major BWV 876*, WTC 2, bar 1 as interpreted by Bodky (Kochevitsky 1975:34)



Kochevitsky not only has rules for the long appoggiatura, but for the short appoggiatura as well, stating that short appoggiaturas should be played in the following instances (1975:28):

1. When it occurs between two notes of the same pitch.
2. When it is attached to a note of the shortest value occurring in the piece or, at least, in the passage where the appoggiatura stands.
3. When it is attached to a note which forms a discord with the bass. (It is played short, in this instance, to avoid turning the discord into a concord.)
4. When it occurs before triplets, so as not to obscure the rhythm.
5. When it forms an octave with the bass, so as to avoid the empty sound of the octave interval.
6. When the appoggiatura is moving by skips, not by steps.

Bodky (Kochevitsky 1975) claims that the Aria from the Goldberg Variations calls into question the length of the appoggiatura in every bar it appears. This is reflected in the numerous ways in which one of the bars has been interpreted by both scholars and performers:

Example 17a: JS Bach, *Goldberg Variations*, Aria bars 1 - 2 as written (Dreyfus & Wolff 1996)



Example 17b: JS Bach, *Goldberg Variations*, Aria bar 2 as interpreted by Busoni and Landowska (Kochevitsky 1975:35)



Example 17c: JS Bach, *Goldberg Variations*, Aria bar 2 as interpreted by Dannreuther (Kochevitsky 1975:35)



Example 17d: JS Bach, *Goldberg Variations*, Aria bar 2 as interpreted by Dolmetsch (Kochevitsky 1975:35)



Example 17e: JS Bach, *Goldberg Variations*, Aria bar 2 as interpreted by Frotscher (Kochevitsky 1975:35)



Example 17f: JS Bach, *Goldberg Variations*, Aria bar 2 as interpreted by Keller in 1950 (Kochevitsky 1975:36)



Example 17g: JS Bach, *Goldberg Variations*, Aria bar 2 as interpreted by Keller in 1956 (Kochevitsky 1975:36)



Keller explains his change from 17f to 17g as follows:

When the appoggiatura is executed on the beat, the main-note is moved on to the lighter part of the beat and, thus, loses its significance. For this reason, the use of appoggiaturas of this type, in quantity, seems pretentious and mannered (Kochevitsky 1975:30).

It is the view of the present writer that Keller's explanation is vague and, in this instance does not equate to the main notes losing their significance as they form part of a simple descending scale. The present writer also fails to understand how multiple appoggiaturas played on the beat would result in a pretentious sound.

In conclusion, there appears to be multiple ways in which appoggiaturas can be executed in the keyboard music of JS Bach. They boil down to two main considerations: whether they are played before or on the beat, and the length of the appoggiatura itself. The present writer does not agree with following a list of rules when determining the execution of an appoggiatura, but rather in deciphering each appoggiatura in the context in which it appears. Neumann's table of the varying lengths of Bach's appoggiaturas (1993) has proved useful in practice at the keyboard as it allows room for experimentation by the performer without having to conform to specific rules. Through this practice, the present writer has discovered a preference for shorter appoggiaturas and concurs

with Neumann's overlong appoggiaturas as being generally unsuitable in the keyboard music of JS Bach.

2.4 The trill

One of Bach's ornaments which may equal the appoggiatura in debate is his trill. Apart from his notation in the *Explication*, Bach would sometimes indicate trills as a *t* and *tr*. Neumann (1993) defines Bach's trills as an interpenetration of the Italo-German main-note tradition together with the full spectrum of the French models which often started from the upper-note. Neumann proposes that given the wide variety of choice available at the time, Bach would not have confined himself to one single design. Therefore, the upper-note trill from the *Explication* which is often cited as the basic, and sometimes sole, Bach trill type is unrealistic. This raises one of the most controversial issues in interpreting Bach's trills: whether to begin on the main-note or on the upper-note. Neumann (1993:413) mentions many scholars - Aldrich, Dolmetsch, Donington, Hochreither and Klotz - who advocate for the single principle of the upper-note start, while others - Badura-Skoda, Bodky, Emery, Keller and Kreutz - believe it to be the basic principle. However, the latter group admit there are occasional exceptions to this basic principle which exist mainly to avoid unmusical results. According to his ornamentation rules, Tovey corroborates the principle that trills are "conceived as running from the top downwards, never from the lowest note, upwards" (1924:18).

Neumann, however, advocates strongly for the use of main-note trills, especially when the trill is simply a melodic embellishment giving the written note more brilliance, or to keep it from decaying on the harpsichord. He states that both melody and harmony should be considered before deciding on an upper-note start. Dannreuther, similar to Neumann (1993) and Kochevitsky (1975), accounts for both main-note and upper-note trills providing a list of instances when a main-note trill should be used (1895:165-166):

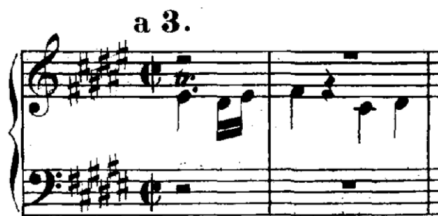
1. When the trill starts without preparation.
2. When the trill starts after a staccato note or rest.
3. When the repetition of a note is thematic.
4. When the melody skips and the trill forms part of a characteristic interval.
5. If the movement of the bass was to be weakened [obscured] if the trill was to start on the auxiliary note.
6. Dannreuther quotes one of Kroll's exceptions for this rule: "Whenever an appoggiatura from above would be out of place, then the shake [trill] had better not begin with the accessory".⁵

⁵ Kroll's rule calls into question the entire approach to ornamentation in Bach's keyboard music as who decides that an appoggiatura is "out of place"? Is that ultimately the choice of the performer? If so then all ornaments are subjectively interpreted according to the performer's taste alone, thereby negating any rules and consideration for research on historical performance practices.

The application of specific rules to ornaments in the Goldberg Variations will be discussed in Chapter 4.

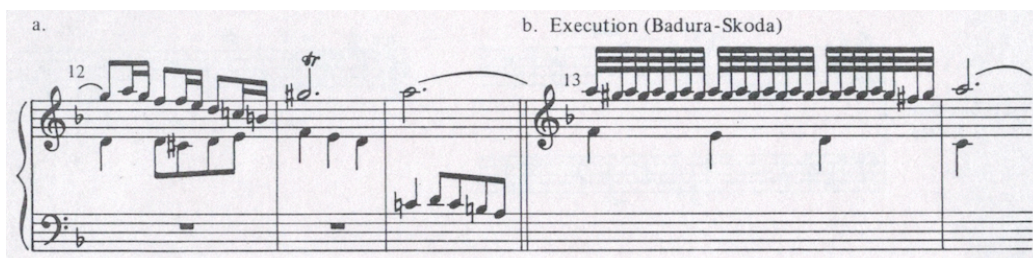
Kochevitsky (1975:26) also supplies a set of rules for main-note trills: two of which are similar to rules 1, 2 and 4 by Dannreuther, while the third one states it should be used when it is preceded by the upper-note so as to avoid repetition of the tone. Neumann (1993), Dannreuther (1895) and Kochevitsky (1975) all use the subject of the Fugue in F sharp BWV 858 from WTC 2, as a prime case for beginning the trill on the note. This adheres to Dannreuther's first rule and Kochevitsky's second rule, the latter stating that a main-note trill should be played at the beginning of a piece.

Example 18: JS Bach, *Fugue in F sharp BWV 858*, WTC 2, upbeat and bar 1 (Bach Gesellschaft 1897)



Neumann supports his suggestion by stating that if one was to begin with the tonic as an appoggiatura, it would “deprive the leading tone of the potential energy deriving from its inherent suspense and impulse toward the tonic” (1993:418). Neumann also uses an extract from Bach's Chromatic Fantasy and Fugue to advocate for a main-note start, as opposed to Badura-Skoda who suggests an appoggiatura trill:

Example 19: JS Bach, *Fugue from Chromatic Fantasy and Fugue BWV 903*, bars 12 - 14 (Neumann 1993:414)



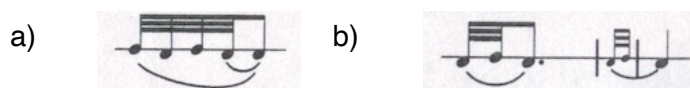
Neumann gives multiple reasons why he prefers a main-note start in this instance. He argues that this trill is a purely melodic ornament whose function is to keep the sound audible of the leading note (G sharp) to the temporary tonic of A (in A minor). He claims that a main-note trill will clarify

this progression, whereas an appoggiatura trill will obscure it due to the continuous upper-note emphasis. Neumann also states that the G sharp creates a dissonance which intensifies the tension contained in the leading note and that Badura-Skoda's solution not only diminishes this tension but also impoverishes the harmony.

2.4.1 The *Pralltriller* and *Schneller*

A further area of debate lies within Bach's trills: the difference between the so-called *Pralltriller* and *Schneller*. According to Neumann (1993), both of these terms were coined by CPE Bach, although their designs had been used for a long time before. Kochevitsky (1975:22) writes that the *Schneller* has its roots in the inverted mordent - the symbol for which is the same as that for the mordent, however it omits the vertical dash \blacktriangledown . This is the same symbol Bach uses for his *trillo* (see Example 8 (1)). He states that the original meaning of this symbol changed during the Baroque era and resulted in representing a short trill consisting of four notes, beginning with the upper-note. Thus, the inverted mordent became what scholars such as Badura-Skoda (2013), Neumann (1993) and Tovey (1924) call the *Pralltriller*. It is perhaps due to this change of meaning and the resurgence of the inverted mordent symbol being used in the 18th century (Kochevitsky 1975) that may have caused confusion between the terms *Pralltriller* and *Schneller*, resulting in their names being used interchangeably. Neumann (1993) clearly differentiates between the two ornaments, defining the *Pralltriller* as a miniature upper-note trill and the *Schneller* as a miniature main-note trill.

Example 20: *Pralltriller* (a) and *Schneller* (b)⁶ (Neumann 1993:419)



Similar to Kochevitsky, Neumann (1993) points out that writers old and contemporary used the term *Pralltriller* as a synonym for the *Schneller*, which has led to the *Schneller* being largely ignored as an ornament on its own. He notes that a *Schneller* can be used whenever a main-note trill is appropriate and there is neither need nor time for more than one alternation. Similarly, an on-beat four-note *Pralltriller* can replace an upper-note trill. Neumann states that it is unnecessary to make a distinction between the *Schneller* and *Pralltriller* on one side and the regular trill on the other, because for JS Bach their difference lies only in size and not in kind.

⁶ Neumann indicates both an on-beat and pre-beat *Schneller*.

Badura-Skoda speaks decisively on the matter in his article titled “*Let’s get rid of the wrong Pralltriller!*” (2013). He claims that the upper-note *Pralltriller* was popularised by the harpsichordist Wanda Landowska. He writes that this “Landowska trill” (2013:113) has had an effect on generations of harpsichordists, pianists (including Badura-Skoda himself and Glenn Gould), textbooks and annotated editions of Bach’s music. Badura-Skoda postulates that the erroneously conventional execution of this ornament lies with a missing tie due to a printing error in the first edition of CPE Bach’s *Versuch* which Landowska used as her principle source for the ornament.⁷

Example 21a: *Pralltriller*, CPE Bach *Versuch* first edition (Badura-Skoda 2013:113)



Example 21b: *Pralltriller*, CPE Bach *Versuch* all subsequent editions (Badura-Skoda 2013:114)



Having been converted from the upper-note to the main-note *Pralltriller*, which is actually a *Schneller*, Badura-Skoda writes that “[i]t is time...that we change our minds with regard to this ornament” (2013:116). Therefore, one can conclude that Badura-Skoda’s aim is to bring the *Schneller* back into performance practice in the keyboard music of JS Bach. However, he continues using the term *Pralltriller* throughout his article when describing a *Schneller*, adding to the confusion and intermingling of these terms. With Neumann however, the distinction is unequivocal: a *Pralltriller* is a short upper-note trill and a *Schneller* is a short main-note trill. These ornaments need to be recognised as separate entities and for the purposes of this dissertation the present writer will distinguish them as such in the following two chapters.

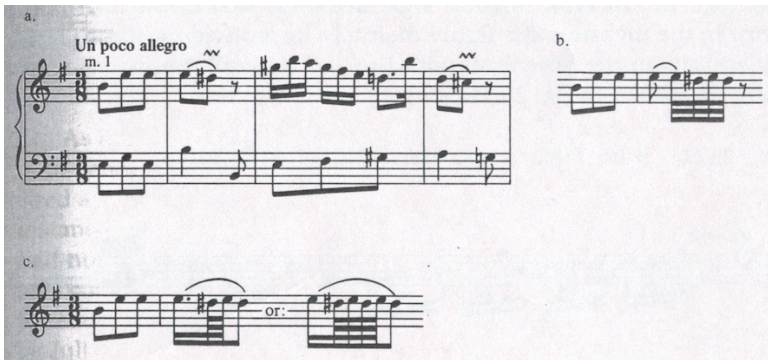
2.4.2 Anticipated trills and the slide

While in their lists of rules on Bach ornamentation both Kochevitsky (1975) and Tovey (1924) state that all of Bach’s ornaments are to be played on the beat, Neumann (1993) is one of the very few scholars to express far greater flexibility in their treatment, advocating for anticipated alternations and starting points for all of his ornaments. He suggests that a suitable context for anticipation is

⁷ Badura-Skoda substantiates the printing error not only by comparing the first edition of CPE Bach’s *Versuch* with all subsequent editions, but also by pointing to p. 102 (wrongly printed as p. 84 according to Badura-Skoda) of the *Versuch* where the mordent is described as the inversion of the *Pralltriller*.

when Bach wrote out the appoggiatura of the appoggiatura trill in regular notes, rather than with a symbol.

Example 22: JS Bach, *Trio Sonata no. 4 for organ in E minor BWV 528*, (Neumann 1993:421)



According to Neumann, in the above example, letter 'b' is the solution for those who insist that the auxiliary note must sound on the beat. He advises against it, as it confuses the rhythmic perception due to the absence of a clarifying beat in the bass. He states that if the trill were to start on the beat it will create an accent on the appoggiatura's resolution when it should rather recede. Neumann prefers anticipation (letter 'c' in Example 22 above) as it clarifies the rhythm, does justice to the trill and gives no false accent.

Further to anticipated ornaments, Neumann states that oftentimes purely musical considerations will determine their feasibility. He uses bar 3 of the Aria from the Goldberg Variations as a case in point (letter 'a' in Example 23 below):

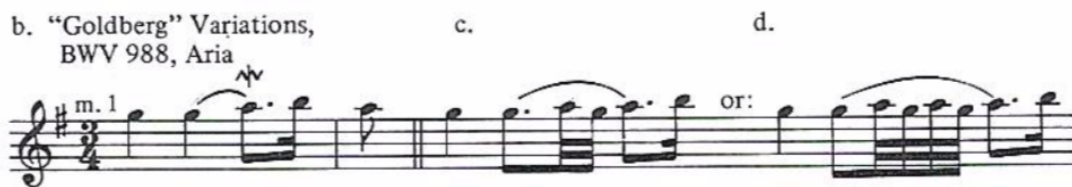
Example 23: JS Bach, *Goldberg Variations*, Aria bar 3 (Neumann 1993:452)



Neumann states that the conventional performance of the turn trill is shown at letter 'b' which according to him obscures the thematically crucial tone repetition and "invests the second tone with an appoggiatura quality where an appoggiatura is out of place" (1993:451). He proposes that the three-note anticipation solution at letter 'c' adheres to the melody without detracting from its essence.

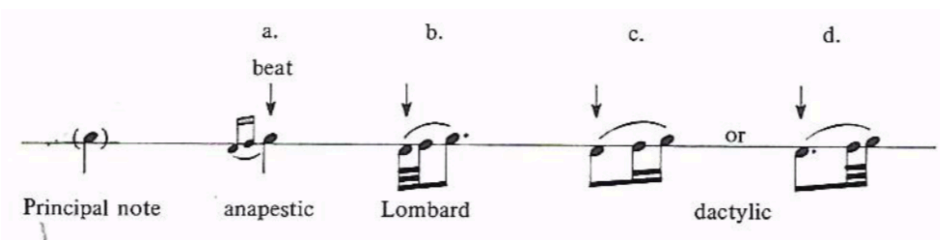
Neumann advocates for an anticipated mordent in the opening bar of the Aria from the *Goldberg Variations*. He writes that because the Aria is in the style of a Sarabande, the second beat in the bar has the heaviest weighting. Therefore, an on-beat execution of the mordent would cause the third beat to be accented, which would be against its nature as the lightest beat in a Sarabande. Therefore, he suggests anticipation of the mordent as shown in the following example (c and d):

Example 24: Anticipated mordent in Bach's *Goldberg Variations*, Aria (Neumann 1993:467)



Neumann also mentions the slide as an ornament which can have a pre-beat execution, such as the anapestic type illustrated in Example 20:

Example 25: The various rhythmic dispositions of the slide (Neumann 1993:352)



He writes that Bach used all three types of the slide: the mainly French anapest, the Italo-German Lombard and the predominantly Italian always on-beat dactyl. Bach notates the slide with both the custos symbol (originating from Kuhnau, according to Neumann - see Example 26 below) and the little notes of the French tradition (see letter 'a' in Example 25 above).

Example 26: JS Bach, *Goldberg Variations*, Aria bar 23, custos symbol (Dreyfus & Wolff 1996)



Neumann writes that both the custos and little notes can stand for the on-beat Lombard design or the pre-beat anapestic one. However, it is only the custos which can stand for the dactyl design.

2.5 Conclusion

In this chapter, Bach's *Explication* has been interrogated in order to demonstrate that his designs are not always technically and/or rhythmically possible in his keyboard music. The *Explication* does not represent all of Bach's ornaments and nor does it demonstrate how the ornaments are to be played when they are written above notes which have a different note-value to the crotchets in the *Explication*. Examples from Bach's broader keyboard works have highlighted his usage of ornaments not represented in his *Explication* as well as ornaments written out in full notes which can aid the performer in understanding his ornamental style. Various scholars' rules on ornamentation have been discussed which often resulted in the rules falling apart when applied to musical examples, particularly in the case of Tovey (1924) (see Example 13). Even when scholars and performers attempt to adhere to rules on ornamentation, it often presents a wide variety of executions of the same ornament, as shown in Examples 16 and 17. The broader approaches to Bach's ornaments from Neumann (1993) and Badura-Skoda (2013) allow flexibility in the choices of the performer, without resulting in unstylistic interpretations. The reason for this is that performers are encouraged to contextualise the ornament by considering the harmonic, melodic and rhythmic implications of the music. This is particularly relevant in the many instances where it may be preferable to play an ornament before the beat. However, and perhaps most importantly, a clear distinction between the *Pralltriller* and *Schneller* has been made. This warrants a re-evaluation of the consistent use of the *Pralltriller* and the neglect of the *Schneller* by many pianists which will be discussed in the following chapter. The findings of this chapter will be applied in greater detail in Chapter 4 where the present writer will present his own solutions to the execution of specific ornaments in the Goldberg Variations.

Chapter 3

Choices of Ornamentation in the Goldberg Variations: An Analysis of Recording Traditions

For this chapter, recordings of performers who are reputable specialists of JS Bach's music have been chosen for analysis. This has resulted in the selection of the following recordings on harpsichord and piano of Bach's Goldberg Variations: Daniel Barenboim (1989); Andrei Gavrilov (1993); Glenn Gould (1955, 1958 and 1981); Angela Hewitt (1999 and 2015); Wanda Landowska (1933 and 1945); Gustav Leonhardt (1965 and 1976); Tatiana Nikolayeva (1979, 1986 and 1992); Murray Perahia (2000); András Schiff (1983 and 2015); and Rosalyn Tureck (1957, 1988, 1995 and 1998). In the cases of Gould (1958), Nikolayeva (1979 and 1986) and Schiff (2015) the recordings are live and are available on YouTube.⁸ A commercial disc has more finality than a live video recording as it is edited and cannot be altered after release. Therefore, artists have to be very thorough and certain about their choices of ornamentation as their choices will form part of their artistic legacy. These recordings are made by musicians who possess considerable experience through years of performance, study and experimentation. Each of these musicians' interpretation has validity, even if one does not necessarily agree with every interpretive choice. This chapter has been limited to ornaments in the Goldberg Variations which pose a particular interpretive and/or technical consideration. Trends in ornamentation amongst the performers will be highlighted and compared to the approaches of scholars that were discussed in Chapter 2.

3.1 Aria

Bodky states that the question of length regarding appoggiaturas in Bach's music is raised in practically every bar of this piece (Kochevitsky 1975). The Aria is the most ornamented movement in the Goldberg Variations and has such structural significance that it merits a study on its own in this chapter when looking at the various recorded interpretations of renowned artists. The author has included a copy of the Aria on the next page (Example 27) for ease of reference.

In bar 2 all of the selected recording artists play the first appoggiatura as a semiquaver, except Gould (1958) and Schiff (2015) who both play it quicker, closer to the value of a demisemiquaver. In their other recordings, Gould and Schiff play it as a semiquaver. The second appoggiatura is either interpreted as a semiquaver or a quaver by the performers, while Leonhardt plays it as an overlong (Neumann 1993 - see the description of this in Chapter 2) dotted quaver. Both Hewitt and

⁸ For multiple recordings by the same performer the author will reference specific recordings with their dates. However, if no date is referenced then all of his/her recordings are being referred to.

Schiff change their interpretation in their second recordings, with Hewitt (2015) playing this appoggiatura longer and Schiff (2015) playing it shorter.

Nearly all of the performers interpret bar 4's appoggiatura as a quaver, however Leonhardt (1965) and Gavrilov play it as an overlong dotted quaver. Leonhardt changes this to a quaver in his second recording (1976). While the rest of the performers play the appoggiaturas in bar 6 the same way they played them in bar 2, Leonhardt (1976) again differs from them as he plays the second appoggiatura in bar 2 as a dotted quaver, but plays it as a quaver in bar 6.

Example 27: JS Bach, *Goldberg Variations*, Aria (Bärenreiter-Verlag 1977)

The image displays a musical score for the Aria from JS Bach's Goldberg Variations. The score is written for piano and is in G major, 3/4 time. It consists of six systems of music, each with a treble and bass staff. The first system is labeled 'Aria' and starts with a fermata over the first measure. The second system begins at measure 7. The third system begins at measure 13 and includes a repeat sign. The fourth system begins at measure 18. The fifth system begins at measure 23. The sixth system begins at measure 28 and ends with a fermata. The score includes various musical notations such as slurs, accents, and dynamic markings like 'cresc.' and 'dim.'.

Perahia (2000) is the only performer who does not interpret the appoggiatura in bar 7 as a semiquaver. Instead he plays the appoggiatura with the first note of the left hand ('G') and then places the right hand 'A' between the second and third semiquavers of the left hand.

The majority of the performers play the appoggiatura in bar 8 as either a semiquaver or quaver. However, Barenboim (1989) and Schiff (1983) play it as a crotchet, while Gavrilov plays it as a dotted quaver. Gavrilov is the only performer who interprets the appoggiatura in bar 14 differently from the rest of the recordings:

Example 28: JS Bach, *Goldberg Variations*, Aria bar 14 as interpreted by all but one of the selected recording artists



Example 29: JS Bach, *Goldberg Variations*, Aria bar 14 as interpreted by Gavrilov (1993)



With bar 16 being a significant cadential point bringing the first half of the Aria to a close, the two appoggiaturas in this bar are more widely interpreted amongst the performers. The most common interpretation is that of the first appoggiatura being played as a semiquaver and the second being played as a quaver. This approach is adopted by Gould, Landowska and Nikolayeva in all of their recordings. Leonhardt and Tureck play the first appoggiatura as a quaver, eschewing the tie, and play the second appoggiatura as a dotted quaver.

Example 30: JS Bach, *Goldberg Variations*, bar 16 as played by Leonhardt and Tureck



Schiff (2015) also plays the second appoggiatura as a dotted quaver, but he plays the first appoggiatura as a semiquaver. Hewitt (2015) and Perahia (2000) play this bar the same as Schiff

(2015), however Perahia changes the second appoggiatura to a quaver in his repeat of this section.

In his earlier recording (1983) Schiff plays the first appoggiatura as a semiquaver and the second as a crotchet, which is the same approach from both Barenboim (1989) and Hewitt (1999). By playing the second appoggiatura as a crotchet, not only does this create an overlong appoggiatura, but it places the 'D' in the soprano voice together with the 'D' in the alto voice, creating an open octave sound, which is a rare occurrence in the practice of the time. Gavrilov has his own unique interpretation of this bar choosing to play both appoggiaturas as semiquavers.

The first two appoggiaturas in bar 18 are played as demisemiquavers, similar to the rhythm in bar 7, by Hewitt (2015), Landowska, Leonhardt, Perahia and Schiff. Gavrilov, Hewitt, Leonhardt and Schiff play the third appoggiatura in the bar as a dotted quaver, while Landowska and Perahia play it as a demisemiquaver, fitting in with their other appoggiaturas in the bar. Gould (1955 and 1981) plays the first two appoggiaturas as semiquavers and the third as an overlong crotchet, whereas in 1958 he adopts a unique execution of this bar:

Example 31: JS Bach, *Goldberg Variations*, Aria bar 18 as played by Gould (1958)



The interpretation of the last appoggiatura in bar 18 as an overlong crotchet is also played by Barenboim and Tureck. It is only Nikolayeva who interprets this appoggiatura as a quaver. The two appoggiaturas in bar 19 are either played as two semiquavers (Gavrilov, Gould 1958, Landowska, Leonhardt, Perahia and Schiff 2015) or as a semiquaver and a quaver (Barenboim, Gould 1955 and 1981, Hewitt, Nikolayeva and Schiff 1983). Tureck plays this bar differently to the rest of the performers:

Example 32: JS Bach, *Goldberg Variations*, Aria bar 19 as played by Tureck (1957, 1988, 1995 and 1998)



The first appoggiatura in bar 20 is omitted by multiple performers including Barenboim, Gavrilov, Gould (1958, 1981), Landowska, Leonhardt (1965), Perahia and Tureck. However, Tureck does play it when she repeats this section. Hewitt, Leonhardt (1976), Nikolayeva and Schiff play the first appoggiatura in bar 20 as a semiquaver and the second as a quaver. Gould, however, plays both of these appoggiaturas as semiquavers. Barenboim and Gavrilov play the second appoggiatura as a dotted quaver and both Landowska and Tureck use it as the first note of a *Praltriller*.

In bars 21 and 22 Barenboim, Gould (1955, 1958) Hewitt, Leonhardt and Perahia play both appoggiaturas as semiquavers, whereas Nikolayeva and Gavrilov play them as quavers. Gould (1981) omits the first appoggiatura and Landowska chooses to omit them both. Tureck adopts a different approach to these appoggiaturas, playing the first (bar 21) as a semiquaver and the second (bar 22) as a quaver. Schiff also has his own interpretation playing the first appoggiatura as a dotted quaver and the second as a quaver. With the exception of Gavrilov who plays the appoggiatura in bar 23 as a demisemiquaver, all the other performers play it as a semiquaver.

Bar 24 signifies another major cadential point, this time in the relative minor, E minor. The first appoggiatura in this bar is played as a semiquaver by all of the performers, however the second undergoes a more diverse interpretation. Gould, Perahia and Tureck play it as a quaver; Gavrilov, Landowska and Schiff play it as an overlong dotted quaver; and Barenboim, Hewitt and Nikolayeva play it as an overlong crotchet. In the same bar it is common for the alto voice to be held longer than notated as Gavrilov, Gould, Landowska, Nikolayeva and Perahia all create a suspension at varying lengths. Gould, Landowska and Perahia play the 'G' in the alto voice one semiquaver after the second beat, while Gavrilov plays it one semiquaver before the third beat of the bar. Nikolayeva extends the suspension even further, playing the 'G' exactly on the third beat. This suspension mitigates the dissonance of the 'D#' against the 'G' and 'E' in the other voices which in the present writer's opinion detracts from the expressive nature of the cadence in E minor.

Nearly all of the performers play the appoggiaturas in bar 25 in the same manner they played the appoggiaturas in bar 2. The two exceptions, Gavrilov and Schiff (2015) have different approaches: Gavrilov plays the first as a semiquaver and the second as a dotted quaver, whereas Schiff plays the first as a demisemiquaver and the second as a quaver.

With the exception of Gavrilov and Gould (1981), all of the performers play the right-hand appoggiatura in bar 26 as a quaver and the left-hand appoggiatura as a semiquaver. While Gavrilov and Gould (1981) play the left-hand appoggiatura also as a semiquaver, they play the right-hand appoggiatura with the 'E' in the bass and place the proceeding 'G' in the right hand in between the second and third semiquavers of the left hand.

In the final bar of the Aria the appoggiatura is played both times (including the repeat) as a quaver by Barenboim and Gould. Hewitt plays this appoggiatura as a crotchet both times as do Landowska and Leonhardt, though the latter two performers do not play the repeat. The choice to play the final appoggiatura as a crotchet means that the last bar will have four beats instead of three and in order to disguise this lengthening of the bar, the performers often play a *ritardando* in this bar. Nikolayeva, Perahia and Schiff alter the length of the appoggiatura playing it first as a dotted quaver and then as a crotchet. Gavrilov is the only performer who plays this final appoggiatura as a dotted quaver.

The mordents in bars 1, 5 and 17 are played slightly after the beat by Gould (1958), Landowska, Leonhardt, Perahia and Schiff (1983). Gavrilov, Hewitt, and Nikolayeva play these mordents on the beat, while Gould (1955, 1981) and Schiff (2015) change their approach from their other recordings and play them on the beat.

The turn in the right hand in bar 6 has been interpreted in two different ways amongst the performers. Gavrilov, Gould (1955, 1958), Landowska and Nikolayeva play it starting on the main-note, similar to the turns that Bach writes out in Variation 13. Gould changes his approach in 1981 and together with Hewitt, Leonhardt, Perahia and Schiff, he now plays the turn starting from the note above the main-note as per Bach's *Explication*.

The compound trills in bars 3 and 11 are played on the beat, starting on the upper-note of the turn by all the performers except for Gavrilov. He eschews Bach's ornament symbol and plays both trills as upper-note on the beat trills.

The trill symbols in the left hand in bars 10, 19, 20, 21 and 22 are played as *Praltrillers* by Barenboim, Gould, Hewitt, Landowska, Leonhardt, Nikolayeva and Tureck. This highlights Badura-Skoda's claim (2015) that *Praltrillers* have become ubiquitous in Bach's music as the standard interpretation of short trills. It is only Schiff who plays these trills as *Schnellers*, which in the present writer's opinion brings greater clarity to the movement of the bass line as the *Schneller* does not repeat the preceding note as in the case of a *Praltriller*. For reasons which are unclear to the present writer, Gavrilov uses the *Schneller* in bars 10 and 19, but changes to the *Praltriller* in bars 21 and 22. The slide in bar 23 is executed as a Lombard by all of the selected performers, shown in the example below.

Example 33: JS Bach, *Goldberg Variations*, Aria bar 23, the slide as played by all the selected performers



If one takes into account the full title of the Goldberg Variations - “Aria with diverse variations (changes)” - then it becomes reasonable to expect diversity in the performer’s approach, particularly when repeats are incorporated. Changing ornamentation during repeats was part of the performance practice of the time and therefore should be considered by contemporary performers. Thus, diversity in ornamentation by the selected performers in this chapter has been scrutinised. Amongst them Barenboim, Gavrilov, Hewitt, Nikolayeva, Perahia, Schiff and Tureck have chosen to play all the repeats. Four of those performers - Hewitt, Nikolayeva, Schiff and Tureck - have recorded the work more than once. In the view of the present writer, there would be an even greater expectation to find changes in ornamentation amongst the latter group of performers as a significant amount of time has passed between recordings.

In the Aria, Gavrilov does not change any ornamentation in the repeats and nor does Nikolayeva in her three recordings of 1979, 1986 and 1992. The only difference she makes is in her 1992 recording where she plays the appoggiatura in bar 32 as a quaver and then as a crotchet in the repeat. This is similar to Perahia who also plays the appoggiatura in bar 32 longer the second time. His only other change to ornamentation is in bar 16 where he plays the second appoggiatura as a quaver the first time and as a dotted quaver the second time.

Schiff (1983) makes more changes during repeats playing the mordents as four notes, instead of the three notes during the first time. He plays the arpeggio in bar 11 upwards, rather than downwards, and he plays the compound trill in the same bar as a lower compound trill the second time. Barenboim (1989) makes these exact same changes in his repeats. Schiff (1983) adds a downward slide in bar 20 and adds more notes to his upwards slide in bar 23. In bar 22 he adds passing notes to the right hand on the first beat and plays a longer appoggiatura in bar 32. Schiff’s approach to ornamentation in his 2015 performance does not deviate much from his earlier recording. He plays shorter appoggiaturas in bars 2, 5 and 12 and changes the second appoggiatura in bar 16 from a crotchet to a dotted quaver. The second half of the Aria is played nearly identically to his 1983 recording, only changing the ‘D#’ appoggiatura in bar 24 from a semiquaver to a dotted quaver, and playing the appoggiatura in bar 25 shorter to coincide with bars 2, 5 and 12.

Similar to Schiff, Hewitt makes minor changes in her ornamentation of the Aria between her two recordings. In 1999 she repeats the first half exactly the same and in the repeat of the second half she adds a slide and trill in bar 20 as well as a *Pralltriller* in the left hand:

Example 34: JS Bach, *Goldberg Variations*, Aria bar 20 as played by Hewitt (1999)



In 2015 Hewitt plays the appoggiaturas in bars 2 and 6 as quavers, whereas in 1999 she plays them as semiquavers. In bar 16 (2015) she plays the second appoggiatura as a dotted quaver and in the repeat of the first half she plays the first appoggiatura in bar 2 as a semiquaver. She changes the ornament on the second beat of bar 12 to an upper compound trill, which Landowska does in both of her recordings as well. In the repeat of the second half, Hewitt plays the appoggiaturas in bar 18 as demisemiquavers except for the last one, which she plays as a dotted quaver. Hewitt did not make these changes in her 1999 recording.

It is Tureck who not only shows the greatest change in ornamentation in her repeats, but also changes in ornamentation between her recordings. Tureck's first recording of the Goldberg Variations in 1957 is performed on the harpsichord, with all others being played on the piano. In this first recording Tureck adds a few mordents during repeats of the Aria, but she displays a preference for adding *Pralltrillers*. In the second half of the Aria she adds eight *Pralltrillers* from bars 26 to 32. This is mirrored 31 years later in her 1988 recording where the same *Pralltrillers* are added, but this time on the piano. Apart from the compound trills being more measured in this later recording, there are no notable differences in ornamentation between these two recordings.

In 1995 Tureck again shows a bias towards *Pralltrillers*, adding them during the repeat of the first half in bars 4, 6, 8, 13, 14 and 15, as well as in bar 25 in the repeat of the second half. She forgoes the aforementioned extra *Pralltrillers* in bars 26 to 32 in this recording and instead adds a downward slide and *Pralltriller* in bar 20, which Hewitt plays in her 1999 recording. Tureck's 1998 recording of the Aria is precisely the same as her 1995 recording and shows no changes in ornamentation.

3.2 Aria da capo

It is only Gavrilov and Schiff who play the repeats in the Aria da capo and while they both play this movement in exactly the same manner as they played the Aria, Schiff's changes ornamentation in

his 2015 performance. More specifically he leaves out all mordents and trills written by Bach. Tureck (1988) adds *Pralltrillers* in bars 13, 14 and 15 (as per her 1995 recording), which is the only difference to her statement of the Aria. In both of Leonhardt's recordings he makes small changes in ornamentation between the two Arias such as a quaver appoggiatura in bar 4, a multiple iterated mordent in bar 8 (1965) and dotted quaver appoggiaturas on the second beat of bars 20 and 24. Landowska (1933) only changes the appoggiaturas in bar 2 and the note value of suffix in bar 3 between her two Aria interpretations. All of the other selected performers play this movement without any differences to their original Arias.

3.3 Variation 5

The technical problem which is resultant from the ornament on the third beat of bar 17 has been discussed in the previous chapter. This problem seems to have been noted by all of the selected performers as none of them play the ornament as written by Bach in his *Explication*. The majority of them (Barenboim, Gould 1955, Hewitt, Landowska 1945, Nikolayeva, Perahia and Schiff) play it as a *Pralltriller* with an added suffix. Landowska (1933) plays it as a turn, Gould (1958 and 1981) leaves it out entirely, while Gavrilov adopts his own unique approach: he plays the note as a 'G' (not as the written 'F#'), and adds a slide from the 'E' below to the first note of the next bar. Tureck changes the ornament to a shortened compound turn from below (with suffix) and Leonhardt plays it the same way as Roizman's annotated solution in his edition of the Goldberg Variations:

Example 35a: JS Bach, *Goldberg Variations*, Variation 5 bar 17 (Dreyfus & Wolff 1996)



Example 35b: Roizman's solution to the compound trill in bar 17 of Variation 5 (1980)



Bars 21 and 22 are comparable with bar 17 in notation and therefore also warranted analysis. Barenboim, Gavrilov, Gould (1955, 1981), Hewitt, Landowska, Nikolayeva, Perahia, Schiff and Tureck all play the ornaments as *Praltrillers* with an added suffix. However, Gould changes his approach in 1958 and plays semiquaver turns instead of trills. Even though Leonhardt plays bar 21 in the same way he played bar 17, in bar 22 he changes his interpretation of the ornament to a *Praltriller* with an added suffix.

3.4 Variation 7

The trills in this variation present a case study of whether *Praltrillers* or *Schnellers* should be used. Tovey (1924) states that Bach's trills are always played on the upper-note and that they never begin by repeating the previous note. Therefore, his rules cannot be applied in this context as every note which has a trill written above it, has the upper-note played before it as indicated in the example below:

Example 36: JS Bach, *Goldberg Variations*, Variation 7 bars 1 - 4 (Dreyfus & Wolff 1996)



Therefore, if *Praltrillers* are used then the melody of the Giga is fraught with repeated notes which do not form part of the melody. Whereas if a *Schneller* is used, then not only is a trill performed, but the melodic integrity of the movement remains intact. It appears that this problem was only considered by one of the selected performers as they all play *Praltrillers*, either on the beat or before the beat. It is only Gavrilov who uses *Schnellers*, but inexplicably he uses *Praltrillers* only in bar 2. This oddity could be explained by performers making a decision in the moment, adding an improvisatory element to ornamentation which adheres to the history of ornamentation as discussed in Chapter 2.

3.5 Variation 11

The ornaments in bars 5, 6, 7, 13, 14 and 15 all impose the same technical problem as one of the notes within the trills is played by the accompaniment. On a harpsichord with two manuals this poses no problem, but for pianists this causes the hands to collide into one another creating both a

physical and technical difficulty. There is also a problem with trying to execute the trills in these measures according to Bach's *Explication* as they are rhythmically unequal. Therefore, the performer is forced to interpret these trills in his/her own way.

Aptly, Landowska plays the trills in bars 5, 6 and 7 as written, continuing to the third beat as she is playing on a harpsichord. She changes the trill in bar 13 to a lower compound trill seemingly to match the lower compound trills written in the two preceding bars. All three trills are played to the third beat. While Leonhardt also plays on a harpsichord, all of his trills stop on the second beat. He plays bar 5 as an upper-note trill and changes bar 13 to an upper-note compound trill.

Gould (1955) plays bars 5, 6 and 7 as the beginning four notes of a lower compound trill (F#GAG), stopping before the second beat. He plays bars 13, 14 and 15 similarly, but with an added iteration of the last two notes again stopping before the second beat. In 1958 he changes his ornamentation. His trills now all start on the main-note and contain 5 notes, with the last note being played staccato, stopping *on* the second beat. In 1981 Gould changes his ornamentation yet again. This time in bar 5 he simply plays an upper appoggiatura and the main-note as two semiquavers, leaving out the trill entirely. Similar to his 1955 recording, he plays the first four notes of a lower compound trill in bars 5 and 6, but changes the rhythm to semiquavers.

Example 37: JS Bach, *Goldberg Variations*, Variation 11 bars 6 and 7 left hand as played by Gould (1981)



Gould plays bars 13 and 14 similarly to bars 5 and 6, but in bar 15 he speeds up the rhythm of the lower compound trill adding more iterations and stopping on the second beat.

Nikolayeva (1979, 1992) plays all of the trills as lower compound trills which stop on the second beat. In her 1986 recording she continues the trills in bars 13, 14 and 15 to the 'D' in the left hand. Schiff does not change his ornamentation in this variation between his two recordings, playing bar 5 as a *Pralltriller* and bars 6 and 7 similar to Gould (1955) stopping before the second beat. In bars 13 to 15 he plays the trills as lower compound trills all stopping on the second beat. Barenboim opts to play all of the trills as lower compound trills also stopping on the second beat while Gavrilov plays bars 5 and 13 as *Pralltrillers*, but the rest also as lower compound trills again stopping on the second beat.

Even though Tureck's 1957 recording of the Goldberg Variations is on the harpsichord, she does not continue the trills to the third. Instead she stops before the second beat in bars 5, 6 and 7 playing them as shortened upper compound trills. In bars 13 to 15 she adds more alternations to the trill, but stops when the accompaniment plays the 'D' contained within the trill. Her ornamentation of these measures does not change when she plays the work on the piano in her ensuing recordings. The only difference is that in 1995 and 1998 she stops the trills *on* the second beat whereas she previously stopped them *before* the second beat.

Hewitt (1999) plays bar 5 as a *Praltriller* and bars 6 and 7 as lower compound trills stopping before the second beat. She interprets bar 13 as an upper compound trill stopping on the second beat, while bars 14 and 15 are played as a short lower compound trill stopping before the second beat. Hewitt changes one ornament in this variation in her second recording (2015) playing a *Schneller* in bar 13 the first time and reverting back to her 1999 interpretation the second time. Perahia also plays a *Praltriller* in bar 5 and an abridged lower compound trill in bars 6 and 7 which stop before the second beat. In bar 13 he plays an upper compound trill stopping before the 'D' is played in the left hand and the lower compound trills he plays in bars 14 and 15 all stop before the second beat.

Due to the performer being forced to re-evaluate the ornaments in this variation, they have resulted in a wide variety of interpretations by the selected musicians. It seems that the most common method of avoiding the physical difficulty of the note in the trill also needing to be played in the accompaniment, is to stop the trill either on or before the second beat. This method still allows for a quick and brilliant trill to be played, albeit it with less alternations than written in Bach's *Explication*.

3.6 Variation 13

The appoggiaturas in this variation warrant analysis as they form an integral part of the melodic theme and recur throughout the movement⁹. Whether they are to be played on the beat or before the beat is brought into question from bars 4 and 17. In bar 4 Bach writes out the appoggiatura ('C') in full - before the beat - which can be applied to all corresponding measures as bar 4 contains part of the melodic theme of this variation. The appoggiatura in bar 17, if played on the beat, creates parallel octaves between the bass and soprano voices which according to Neumann (1993), are offensive to the ear. Therefore, if it is to be played before the beat it would be consistent with bar 4 and all other corresponding bars, avoiding the parallel octaves. It will also create an expressive dissonance between the voices.

⁹ This variation was also discussed in the previous chapter.

Example 38: JS Bach, *Goldberg Variations*, Variation 11 bar 4 written out appoggiatura (Dreyfus & Wolff 1996)



Example 39: JS Bach, *Goldberg Variations*, Variation 11 bar 17 (Dreyfus & Wolff 1996)



It seems that this harmonic analysis has not been done by the selected performers as there is a preference for playing the appoggiaturas on the beat evidenced by Gavrilov, Gould, Hewitt, Landowska, Nikolayeva, Schiff (1983) and Tureck. They have either ignored the parallel octaves created in bar 17 or have deemed it unnecessary to derive the placement of appoggiaturas in this movement from bar 17. Schiff changes his approach in 2015 playing all except one appoggiatura as an acciaccatura-like note before the beat. The exception lies in the repeat of the second half where in bar 18 he plays the appoggiatura on the beat. Barenboim, Leonhardt and Perahia join Schiff in his acciaccatura approach, though Barenboim changes his performance of bars 25 and 26 in the repeat to on-beat appoggiaturas. None of the performers interpret the appoggiaturas according to bar 4 of Bach's notation which is the middle ground between an on-the-beat appoggiatura and a quick pre-beat appoggiatura.

3.7 Variation 25

Boyd calls this variation "supremely expressive" (1999:196), while Perahia describes it as darkly chromatic and anguished (2000:10). Bach's own tempo indication of *Adagio* hints at the emotional intensity described by these authors. Thus, the ornaments in this movement, particularly the appoggiaturas, can be interpreted with melodic and expressive intent.

There is a strong performance tradition of playing the first appoggiatura in bar 1 (and all corresponding bars) as a quick pre-beat appoggiatura, very close to an acciaccatura. This is evidenced by Barenboim, Gould, Hewitt, Leonhardt, Nikolayeva, Perahia and Schiff. Landowska however, plays it more melodically as part of a demisemiquaver triplet:

Example 40: JS Bach, *Goldberg Variations*, Variation 25 bar 1 as interpreted by Landowska



This triplet execution is adopted by Tureck in all her recordings except her first (1957) where she plays the appoggiatura on the beat as part of a 4-demisemiquaver grouping:

Example 41: JS Bach, *Goldberg Variations*, Variation 25 bar 1 as interpreted by Tureck (1957)



Due to his extremely slow tempo for this variation (lasting 11'05", the longest of all the performers), Gavrilov is able to play the appoggiatura as an on-the-beat hemidemisemiquaver appoggiatura:

Example 42: JS Bach, *Goldberg Variations*, Variation 25 bar 1 as interpreted by Gavrilov (1993)



One could argue that Gavrilov's approach is overly fussy with the rhythm of the appoggiatura and that it is simply because of his extremely slow tempo choice that it is technically and audibly possible. Furthermore, his tempo could be considered unstylistic and historically incorrect, thereby negating his execution of this appoggiatura entirely.

The second appoggiatura in bars 1 (and all corresponding measures) is written out by Bach as a small semiquaver grace-note (Example 43a). However, it is only in bars 21 and 22 that he writes out this appoggiatura as a full semiquaver note (Example 43b).

Example 43a: JS Bach, *Goldberg Variations*, Variation 25 bar 1 (Dreyfus & Wolff 1996)



Example 43b: JS Bach, *Goldberg Variations*, Variation 25 bars 21 and 22 (Dreyfus & Wolff 1996)

This may be the reason why all of the performers choose to play these particular appoggiaturas as semiquavers throughout the variation. However, it often occurs that this appoggiatura is left-out in different bars amongst the artists. In her first recording (1933) Landowska leaves it out entirely, but in 1945 she leaves it out only in bars 5 and 6. Nikolayeva plays the second appoggiatura in bars 13, 25 and 29 in her 1986 recording, and Perahia eschews it in his repeat of the second half. Schiff (1983) plays it in bar 7 only during the repeat, whereas he plays it in bars 13, 26 and 27 both times. In 2015 he changes his approach entirely to this appoggiatura, now playing it as a demisemiquaver. Schiff goes so far as to ignore Bach's notation of the written-out appoggiaturas in bars 21 and 22 as semiquavers, changing them to demisemiquavers to correlate with his new approach.

3.8 Conclusion

It is clear that a re-evaluation of ornaments in the Goldberg Variations is undertaken by many, if not all, of the selected performers in this chapter. This is particularly true when the music contains technical difficulties needing to be considered as in Variations 5 and 11 where Bach's *Explication* has seemingly been ignored by the keyboardists. Every variation which has been analysed has shown that the performers each have their own approach to ornamentation as none of them play in exactly the same manner. However, there are trends adopted by performers which are not written in the score, such as lengthening notes which are not ornamented in bar 24 of the Aria, and

leaving out appoggiaturas in Variation 25. This calls into question how these trends developed and if they are as a result of the performers listening to recordings by other musicians and simply blindly adopting their interpretation in these instances.

An overlong approach to appoggiaturas has been common amongst the performers, particularly in the rhythm of a dotted quaver followed by a semiquaver. This may be considered unstylistic as when the second note is played so short, the resolution is tapered off too quickly resulting in an inorganic flow of the melody. What has also been largely ignored is the consideration of voice-leading when executing ornaments, specifically the appoggiatura in bar 17 of Variation 13 where parallel octaves were often played. However, what this does represent is that performers do not always follow the rules and suggestions on ornamentation from the scholars discussed in Chapter 2. This could be as a result of the musician's personal taste, his/her own technical ability and physiology or their own improvisatory approach to ornamentation. This subjective approach to ornamentation is evidenced by the performers who recorded the Goldberg Variations multiple times and altered their renditions of ornaments between their recordings.

The prevalence of *Pralltrillers* is particularly evident in the choice of short trills by the keyboardists. This could be the evidence of Badura-Skoda's (2013) claim of the *Pralltriller* infiltrating textbooks, annotated editions of Bach's music and Landowska's influence of popularising this ornament amongst generations of performers. Performers have ignored the erroneous repeated notes disrupting the melodic flow when using *Pralltrillers*, particularly in the Aria and Variation 7. The *Schneller* has been used marginally by nearly all of the performers, except Gavrilov (1993) who adopted it slightly more often, but inconsistently. The musicians have exhibited a disposition for playing ornaments on the beat, with pre-beat executions being all but non-existent.

It appears that the various approaches to the tempo of variations has had an effect on the rhythm of ornaments. This can be evidenced in the wide variety of rhythmic executions of appoggiaturas and trills amongst the performers in the Goldberg Variations. It is also possible that, once again, each performer's technique and personal taste has played a role in their ornamentation. This could be particularly true for Gavrilov (1993) who displayed extreme tempo choices (for example Variations 5, 13, and 25) which resulted in his own unique approach to specific ornaments.

The analysis of ornamentation in the recordings of this chapter has displayed a wide variety of approaches and methods of execution. This has provided the present writer with a broader spectrum of re-evaluating ornaments and has informed him of more possibilities when deciding on his own approaches. This will be combined with the consideration of rules and suggestions discussed in Chapter 2. Also, the findings of the symmetrical structure of the Goldberg Variations

and the effect it has on tempo choices will be added towards his solutions of specific ornaments explored in the proceeding chapter.

Chapter 4

The Application of Various Forms of Ornamentation in JS Bach's Goldberg Variations: A Practice-Based Approach

The application of all the suggestions made in this chapter by the present writer can be heard in his live recording of the Goldberg Variations which has been referenced in Appendix 1 on page 86. The performance is unedited and thus contains note errors. However, the basis for the choices of ornamentation are discussed in detail in this chapter.

4.1 Aria

All of the selected performers whose recordings were analysed in the previous chapter begin the upper-note compound trill in bar 3 on the beat. Therefore, the first note of the compound trill 'A' is placed on the second beat often causing a metrical and/or expressive accent from the performers:

Example 44: Traditional execution of the compound trill in bar 3 of the Aria



This interpretation of the compound trill changes the progression of the melody from 'G' to 'A', whereas Bach's written melody is from 'G' to 'G'. The fact that the Aria is written in the style of a Sarabande also needs to be taken into consideration when deciphering this ornament as the second beat becomes the most prominent in each bar. Therefore, when the 'A' dominates the second beat, it not only distorts the melody, but it also receives undue importance based upon the metrical hierarchy within the bar. Neumann (1993) recognises both of these issues if the compound trill is begun on the beat and suggests an alternative execution where the upper-note turn is placed before the beat:

Example 45: JS Bach, *Goldberg Variations*, Aria bar 3 as interpreted by Neumann (1993)



While the present writer agrees with Neumann's suggestion to anticipate the ornament, he finds that not only is Neumann's notation rhythmically inaccurate in equalling three crotchet beats, but it

is also too quick which could obscure the stately character of the Aria. One solution may be to slow down the rhythm to demisemiquavers which will provide more control and expression of the ornament:

Example 46: JS Bach, *Goldberg Variations*, Aria bar 3 as interpreted by the author



This same approach is applied to the compound trills in bars 11 and 17.

While nearly all of the performers discussed in Chapter 3 play the slide in bar 21 on the beat, the present writer prefers to play an anapestic slide so that the highest note in the bar 'G' remains on the beat, emphasising its melodic importance.

Example 47: JS Bach, *Goldberg Variations*, Aria bars 20 and 21 (Bärenreiter 1977)



Example 48: JS Bach, *Goldberg Variations*, Aria bars 21 and 22, the present writer's solution to the slide



Similarly, in bar 23 the present writer also plays an anapestic slide (unlike all of the selected performers) as it places the highest note of the melody - and thus the climax - on the beat.

Example 49: JS Bach, *Goldberg Variations*, Aria bar 23 (Dreyfus & Wolff 1996)



Example 50: JS Bach, *Goldberg Variations*, Aria bar 23 as interpreted by the author



4.2 Variation 5

As mentioned in previous chapters there is a technical difficulty in executing Bach's written ornament in bar 17 - the compound turn - as the faster tempo which this toccata-like variation requires does not provide enough time to realise the embellishment according to how it appears in Bach's *Explication*. Therefore, a re-evaluation of this ornament is required by the performer. This revision of the ornament was evidenced by all of the selected performers in the previous chapter as none of them played Bach's compound-turn trill in this bar. The present writer believes that there is a notational error by Bach on the third beat of bar 22, as a mordent would be out of place given the pattern of ornaments in the previous bars. In this variation the present writer plays the ornaments in bars 17, 21 and 22 as turns during the first iteration of the second half. This method of execution may accurately convey the beginning of the compound turn and also reflects (or corresponds to) Bach's notation of the turn on beat 3 of bar 19:

Example 51: JS Bach, *Goldberg Variations*, Variation 5 bars 17 - 19 (Dreyfus & Wolff 1996)



During the repeat of the second half, Roizman's (1980) suggestion of executing the compound trill in bars 17, 21 and 22 may also prove helpful. Furthermore, this may imbue the performance of the ornaments in this passage with a greater sense of brilliance and vitality.

Example 52: Roizman's interpretation of Bach's compound trills in Variation 5 (1980)



4.3 Variation 7

The present writer prefers to play *Schnellers* (short main-note trills) throughout this variation where trills are indicated by Bach. A *Pralltriller* (short upper-note trill) in these instances would repeat the previous note of the melody, thus distorting the melodic line of this variation (see Example 36 in Chapter 3). The short trills of the *Schneller* add brilliance to the character of this variation which reinforces Bach's indication for it to be played as a Gigue. The only instance where a *Pralltriller* would be more appropriate, is the first beat of bar 8 as Bach writes an upper-note appoggiatura before this note:

Example 53: JS Bach, *Goldberg Variations*, Variation 7 bars 6 - 8 (Dreyfus & Wolff 1996)



4.4 Anticipated *Schnellers*

The present writer has found it preferable to use pre-beat *Schnellers* in passages where on-beat *Schnellers* would potentially obscure the rhythm. This happens primarily in fast passages with perpetual movement, such as on the first beat of bar 24 in Variation 8.

Example 54: JS Bach, *Goldberg Variations*, Variation 8 bars 21 - 23 (Dreyfus & Wolff 1996)



Considering the toccata-like character of this variation and the quick tempo it requires, it becomes technically difficult to execute the *Schneller* in time on the beat.

Example 55: The rhythmic intention of the *Schneller* on the beat



In practice the present writer has found the above execution to be impractical and unclear. Even with the strictest adherence to the above rhythm, at a quick tempo the ornament sounds as a turn:

Example 56: The practical result of the ornament played on the beat at a quick tempo



However, if the *Schneller* is played before the beat then the rhythm of the first beat of bar 24 remains unchanged and the slight amount of time required to play the pre-beat *Schneller* emphasises the E minor perfect cadence at this point in the variation:

Example 57: The author's pre-beat *Schneller* solution to bar 24 of Variation 8



The brisk tempo and flowing passage work of Variation 12 necessitates an anticipated *Schneller* in bar 4 so as to prevent the ornament from becoming a turn as in Example 56. Therefore, the following solution may assist the performer to obtain clarity:

Example 58: The author's pre-beat *Schneller* solution to bar 4 of Variation 12



If Variation 30 is played at a moderate tempo, the full four-part harmony and folk-song character of this variation may be delineated more clearly by the performer. Again, anticipated *Schnellers* may be applied in bars 4 and 6 not for added brilliance, but rather for greater melodic expression of the ornament and to highlight the exuberance of the musical character.

Example 59: The present writer's solution to the ornament in bar 4 of Variation 30



Example 60: The present writer's solution to the ornament in bar 6 of Variation 30



4.5 Variation 11

During the first statement of this variation the present writer chooses to play short trills in bars 5, 6, 7, 13, 14 and 15. In bars 5 and 13 he plays *Schnellers*, while in the rest of the bars he plays the first four notes of lower compound trills similar to Glenn Gould (1981), but with a quicker rhythm:

Example 61: The present writer's execution of the left-hand ornaments in bars 6 and 7 of Variation 11



In the repeats the present writer lengthens all of the trills with more alternations stopping on the second beat. This avoids the problem of executing the trill while one of notes in the trill is played by the accompaniment.

Example 62: The present writer's execution of the left-hand ornaments during the repeat in bars 6 and 7 of Variation 11

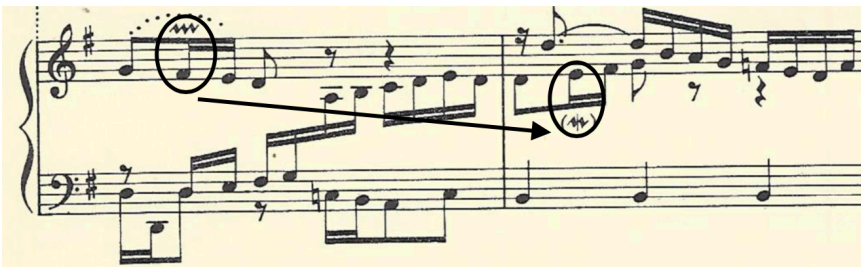


The approach from the present writer to the ornaments in bars 6 and 7 are applied to the ornaments in bars 14 and 15 respectively, both during the first statement and the repeat.

4.6 Variation 12

The present writer follows Kirkpatrick's (1938) suggestion of adding a mordent in bar 5 as it correlates to the voicing of bar 4 and the 'canon at the inverse' technique Bach employs in this variation.

Example 63: JS Bach, *Goldberg Variations*, Variation 12 bars 4 and 5 (Kirkpatrick 1938)



This approach parallels Bach's notated ornaments in bars 29 and 30 of the same Variation:

Example 64: JS Bach, *Goldberg Variations*, Variation 12 bars 29 and 30 (Dreyfus & Wolff 1996)



4.7 Variation 13

As mentioned in the previous chapter, one of the solutions to the appoggiaturas in bars 1, 2, 17 and 18 is to play them as pre-beat demisemi-quavers. This can be traced to the way in which Bach wrote out this type of figuration in bar 4:

Example 65: JS Bach, *Goldberg Variations*, Variation 13 bar 4 (Dreyfus & Wolff 1996)



Thus, the first two bars are played as follows:

Example 66: Variation 13 bars 1 and 2 as performed by the present writer



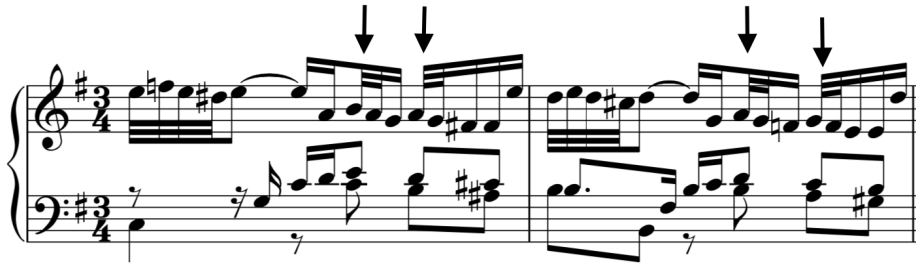
This interpretation gives the appoggiatura greater melodic purpose as opposed to the quick acciaccatura-like execution by many of the selected performers from the previous chapter. By placing these appoggiaturas before the beat, a potentially expressive dissonance is created on the proceeding note with the bass, as opposed to the alternative on-beat consonance. Another advantage of this pre-beat execution is that it avoids parallel octaves in bar 17. Busoni (1915) flagged this up in his edition of the *Goldberg Variations* by writing the appoggiatura in bar 17 before the beat whereas in all other corresponding bars the appoggiatura is placed *on* the beat. The parallel octaves are thus avoided through this choice of notation in the Busoni-edition. This results in the execution of the appoggiaturas being unified throughout the variation.

Example 67: JS Bach, *Goldberg Variations*, Variation 13 bars 17 and 18 (Busoni 1915)



In contrast to the aforementioned appoggiaturas the appoggiaturas in bars 25 and 26 can be played on the beat as the melodic material is different and because it creates an expressive dissonance with the other voices:

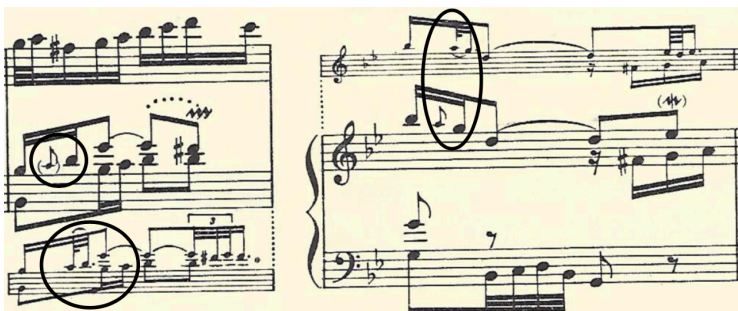
Example 68: JS Bach, *Goldberg Variations*, Variation 13 bars 25 and 26 as interpreted by the present writer¹⁰



4.8 Variation 15

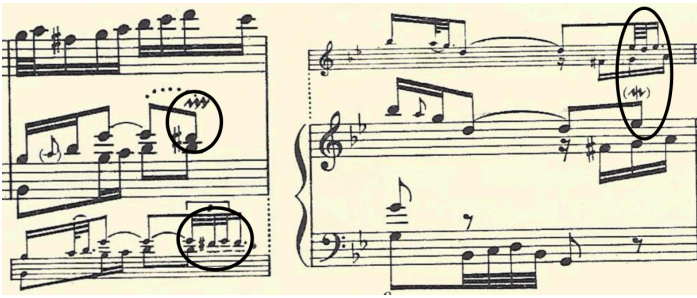
Kirkpatrick's (1938) editorial suggestion of adding ornaments in bars 7 and 8 may prove useful to the performer as it correlates with this canon being written in contrary motion. In bar 7 an appoggiatura is added in the tenor voice, corresponding with Bach's notated appoggiatura in the soprano voice of bar 8 (see Example 69a).

Example 69a: JS Bach, *Goldberg Variations*, Variation 15 bars 7 and 8, appoggiaturas (Kirkpatrick 1938)



¹⁰ The present writer acknowledges the parallel fifths in his solution, however, they are obscured by the bass line which creates a seventh chord. This is in contrast to the parallel octaves in bar 17 where one of voices remains stationary, thereby creating an open octave sound.

Example 69b: JS Bach, *Goldberg Variations*, Variation 15 bars 7 and 8, mordents (Kirkpatrick 1938)



Kirkpatrick's suggested rhythm of the appoggiaturas in bar 7 and 8 is not followed by the present writer and instead they and their ensuing note are played as two demisemiquavers. Kirkpatrick's notation of a mordent in bar 8 is adhered to by the present writer as this corresponds to the *Schneller* notated in bar 7 (see Example 69b). However, they are played as anticipated *Schnellers* as this execution provides a more graceful and melodic resolution instead of an unintentionally accented trill on the beat.

4.9 Variation 16

The only appoggiatura hook symbol in the entire Goldberg Variations appears in bar 15 of Variation 16 (Overture). The length of this appoggiatura can be interpreted in multiple ways, but the proceeding turn symbol in the bar needs to be considered for this determination. For the first statement the present writer has chosen to follow Roizman's (1980) execution of the ornaments in bar 15:

Example 70: JS Bach, *Goldberg Variations*, Variation 16 bar 15 (Roizman 1980)



In the repeat the appoggiatura is played as a longer note, waiting until after the left-hand run before the compound trill in the right hand is begun:

Example 71: The author's interpretation of bar 15 of Variation 16 in the repeat



4.10 Variation 17

Bar 12 poses a technical and physical challenge as one of the notes contained within the mordent is in the accompaniment figure.

Example 72: Variation 17 bar 12



Example 73 contains a solution towards a seamless execution of the mordent. In this case, the note in the accompaniment is kept in its original place, but played by the right hand:

Example 73: Variation 17 bar 12 as suggested by the present writer



4.11 Variation 20

While practising this variation, the present writer experienced a technical problem in executing the left-hand mordent in bar 9. The quick semiquaver triplet rhythm of the right hand which is first introduced in this bar caused the author to perform the mordent too quickly which resulted in it being unclear. His solution is to play the mordent in the time of the triplet figure of the right hand as follows:

Example 74: Variation 20 bar 9 as practiced by the present writer

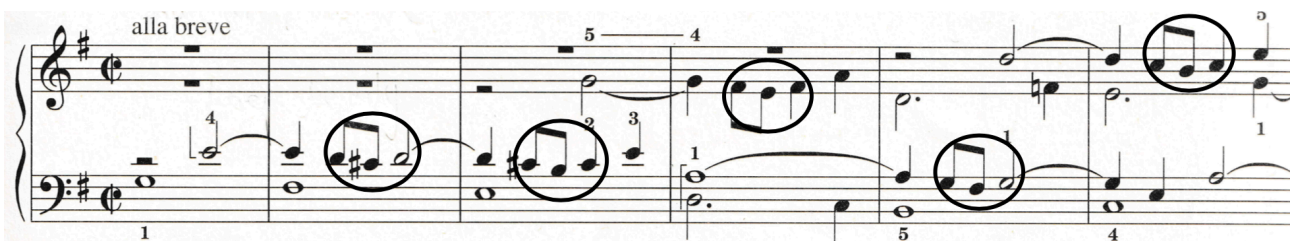


After practising the mordent in this rhythm together with the right hand it gradually allowed for a quicker alternation over time. The same method was applied to the mordent in bar 10. The author did not experience the same technical challenge with the right-hand mordents in bars 11 and 12.

4.12 Variation 22

In bar 11 of this variation Bach writes a long multi-chevron trill over the first of three tied 'G's' in the soprano voice. This is the only time Bach uses this symbol in the Goldberg Variations. It is clear in his indication that he wants a long trill over several bars in order to sustain the tied note ('G') until the beginning of bar 13. All of the selected pianists whose recordings were studied in the previous chapter except Gavrilov (1993) play an upper-note trill. In this instance the author has considered one of Dannreuther's rules for using a main-note trill as "the trill forms part of a characteristic interval" (1895: 165). This variation has a melodic and rhythmic motive which is repeated throughout the movement, indicated below:

Example 75: JS Bach, *Goldberg Variations*, Variation 22 bars 1 to 6 (Wolff/Dreyfus 1996)



If one ignores the trill then it becomes clear that the soprano note in bar 11 is part of the melodic and rhythmic motive which is stated throughout this variation:

Example 76: JS Bach, *Goldberg Variations*, Variation 22 bars 10 and 11 (Wolff/Dreyfus 1996)



Therefore, if the trill is started from the upper-note then the melodic motive is obscured. Thus, the author chooses to play the long trill on the main-note, continuing until the first beat of bar 13:

Example 77: The present writer's execution of the trill as a main-note trill in bar 11



During the repeat of this section the author changes the ornament to a compound trill by beginning with a main-note turn followed by the trill as follows:

Example 78: The present writer's execution of the trill in bar 11 during the repeat



4.13 Variation 25

The predominant approach of the performers whose recordings were analysed in the previous chapter was to play the first appoggiatura in bar 1 (and in all subsequent measures) as an acciaccatura. However, the notation of the grace-note with the line through it was never used by JS Bach, though there are instances where a quick appoggiatura is potentially necessary, as in the case of bar 4 in Variation 13:

Example 79: JS Bach, *Goldberg Variations*, Variation 13 bar 4 (Wolff/Dreyfus 1996)



A quick anticipated grace-note here is required due to the demisemiquavers which proceed it. Even though Bach indicated the appoggiatura as a small demisemiquaver note like in all other instances (except bar 6) of this variation, it is the only instance where the ensuing notes are demisemiquavers and not semiquavers. This means that there is less time for the ornament in bar 4 to be played, resulting in a quick execution so that the ensuing demisemiquavers can be played according to their rhythm. It is possible for this grace-note to be connected to the last semiquaver of the previous bar, however this would result in a repetition of the note 'G' as two demisemiquavers which could be unstylistic and out of place in the melodic construct of this movement.

However, in Variation 25 Bach writes a tempo indication of *adagio*, the third out of a total of three tempo indications by Bach in the entire Goldberg Variations. This tempo gives the performer more flexibility and freedom in the manner in which the appoggiaturas in this variation can be executed, as was demonstrated by the performers whose recordings were studied in the previous chapter. The first appoggiatura in bar 1 (and all corresponding measures) warrants study in its function. It could be that the goal of this appoggiatura is to bring variety to the melodic line considering that the notes before and after it are played multiple times in the same bar. If played as an acciaccatura the ornament may accentuate the minor second interval between it and the ensuing note, resulting in an expressive crushed sound. However, there is also the possibility of including the grace-note as a more integral part of the melody in the manner similar to the execution of the embellishment in the second movement of Liszt's *Piano Sonata in B minor*, S. 178, where it would be unmusical to play the ornament as fast as possible. Therefore, if the first appoggiatura in bar 1 of Variation 25 is played slower, it may render the melody more organic and still serve as an intervallic intensification of the minor second. Considering the merits of both the acciaccatura-like execution and the more melodic approach, the present writer has chosen to play the first appoggiatura in bar 1 similar to Tureck (1957) as part of a four-note demisemiquaver pattern during the first statement of each section.

Example 80: The present writer's execution of the appoggiatura in bar 1 of Variation 25



The second appoggiatura in bar 1 (and all similar appoggiaturas) is played as a semiquaver following Bach's written out notation of this appoggiatura in bars 21 and 22. In the repeats the present writer slightly alters his approach to the ornaments for the sake of variety and further expressive intensification. Therefore, he changes his interpretation of the first appoggiatura to a

triplet similar to Landowska (1933 & 1945) and Tureck (1988, 1995 & 1998) as again this allows it to be integrated within the melody.

Example 81: The present writer's alternative execution to the appoggiatura in bar 1 of Variation 25



Another manner in which the appoggiatura can be interpreted is as part of a four-note demisemiquaver pattern as shown in Example 82. In effect this transforms the ornament into a main-note turn which is similar to the melodic structure of Variation 13. The present writer also takes a more liberal approach to the second appoggiatura in bar 1 and all corresponding measures, sometimes playing it as a demisemiquaver as opposed to a semiquaver throughout the variation. However, he, unlike Schiff (2015), does not alter Bach's notation of the written-out semiquaver appoggiaturas in bars 21 and 22 to demisemiquavers.

Example 82: The present writer's interpretation of bar 1 of Variation 25 in the repeat



4.14 Additional ornaments

4.14.1 The canons

While experimenting at the piano with additional ornaments in the repeats of the first three canons, the present writer ultimately found these ornaments to be superfluous. He found that the ornamentation does not enhance the character or deepen the musical content of these movements. He found it technically difficult to create space for added ornamentation as the distance between the voices is extremely close (unison, second, third) which can lead to distortion of the canonic structure. This presented a case for clarity of voice leading being more important than additional ornaments being added in these variations. In this instance the performer may experiment with his/her timbre between the voices of the canons and thus bring greater diversity to the variation form. The present writer endeavours in his performances to distinguish between the two voices in canon by playing them at different dynamic levels throughout each repeat.

This approach allows for the simplification of additional ornaments which resulted in the following decision by the author to ornament the melodic line and its repeat at the unison in Variation 3:

Example 83: The author's execution of Variation 3 bar 1 in the repeat



No additional ornaments in Variations 6 and 9 were added by the present writer, instead choosing to highlight the different voices within these canons by changing the timbre for each voice during the repeat.

With Variations 12 and 15 being canons at the inverse, they provide more flexibility with inserting additional ornaments as the canonic line is not an exact repetition. The approach to additional ornaments is different between these two movements as Variation 12 is brisk and lively, while Variation 15 is slow and introspective. For Variation 12 the present writer adds slides, mordents and *Schnellers* for brilliance while in Variation 15 he chooses to accentuate and sustain the long notes and cadential points with the addition of main-note trills for greater expression.

In Variation 18 he adds *Schnellers* on the first beat of bars 14 and 30 of the bass line to accentuate the chromaticism of the melody, while in Variation 21 the present writer adds slides, mordents and *Schnellers* in an expressive manner so as not to detract from the calm and introspective nature of the movement. The canon at the octave - Variation 24 - provides space for the addition of mordents, slides and appoggiaturas, particularly on long notes such as dotted quavers. In the final canon, Variation 27, mordents are added to quavers, and *Schnellers* to crotchets and dotted crotchets for greater brilliance and vitality linking to the two ensuing virtuosic variations.

4.14.2 Variation 19

Due to the relatively simple compositional structure of this movement, the present writer adds a significant amount of ornamentation to the repeats. He views this variation as being close to a Minuet and adopts an *allegretto* tempo to highlight the dance-like nature of the music. In the repeat he adds demisemiquaver appoggiaturas to the third beat of the semiquaver pattern where there are intervals of a third. This gives the effect of a quick slide which provides a greater lilt to the music and further stresses the dance character.

4.14.3 Variation 22

The present writer adds quaver appoggiaturas between intervals of a third throughout this variation causing them to become an integral part of the melody and highlight the rhythmic motive mentioned earlier in this chapter. It is demonstrated as follows:

Example 84: The present writer's additional appoggiaturas serving as passing notes in Variation 22 bars 3 - 6



4.15 Conclusion

When determining possible executions of ornaments in the Goldberg Variations, the structure of the work has been considered first as this contributes to making decisions on suitable tempo choices and highlight possible tempo relationships between movements. This approach can be applied to other multi-movement works by Bach such as his keyboard suites. The possible rhythmic renditions of an ornament are directly linked to the tempo of the specific movement wherein the ornament occurs. Tempo is not determined by the ornaments, but rather ornaments are determined by the tempo.

While Bach's *Explication* may assist the performer in obtaining an idea of how the ornament can be played, it cannot be copied and pasted in all instances. Factors such as tempo, dynamics, articulation, phrasing as well as the physiology and technique of the performer all play a role in the comfortable and effective rendition of an ornament. Most of the rules by scholars in Chapter 2 have shown to be ineffective and contradictory, resulting in multiple interpretations by performers despite their effort to remain faithful to the rules. Kochevitsky's (1974) rule stating that ornaments should be deciphered in context is mirrored strongly by Neumann (1989 & 1993) and is perhaps the most logical approach for the performer to follow. When an ornament is deciphered in context, then the melodic, harmonic, rhythmic and voice-leading implications are considered. It has been illustrated in Chapter 3 that often performers do not take these musical aspects into consideration when executing ornaments resulting in questionable performance traditions, particularly when it comes to the *Pralltriller*. While there are times when a *Pralltriller* is suitable, it should not be the only option for executing a short trill in the keyboard music of JS Bach. The *Schneller* has its merits,

particularly when there is not enough time for multiple alternations of a trill, and when the melodic movement can be distorted by using a *Pralltriller*. Considering that Bach indicated a mordent in his *Explication*, it questions why he left out the *Schneller* which is simply an inverse of the mordent. One could postulate that perhaps it was a simple ornament used so frequently that it was not necessary for Bach to notate it in his *Explication*. The clear distinction made between the *Pralltriller* and *Schneller* has illuminated the possibilities for where a *Schneller* can be utilised. The present writer has found that in the Goldberg Variations, there are far more instances suitable for a *Schneller* than there are for a *Pralltriller*.

The wide variety of approaches to ornamentation from the performers whose recordings were analysed in Chapter 3 further emphasise the flexibility and improvisatory nature of ornaments. It is clear that most of the rules presented in Chapter 2 were either dismissed or ignored by the performers. However, one of the rules which most, if not all, of the performers adhered to was the downbeat rule. The present writer has found this rule to be inadvisable. It has been exhibited to create unstylistic results and often times is technically impossible to execute, specifically in fast passages where trills are required. Examples have illustrated that anticipated trills are not only technically easier to achieve, but that they add to the musical content, often avoiding the distortion of melodic and harmonic lines.

By taking into account the structure of the Goldberg Variations, tempo considerations, scholars' rules and suggestions, ornament tables, as well as the diverse approach to ornamentation from reputable keyboardists, the present writer has been able to find his own solutions to ornaments from a broad and independent point of view. A practice-based approach gives the performer freedom to experiment with the rhythmic possibilities of executing ornaments which often leads to multiple solutions for a single ornament. This should not be of concern to the performer, but rather a celebration of the fact that different interpretations are more than likely what the composer (in this case JS Bach) intended. After all, if Bach wanted his ornaments to be played in a specific manner, then he would have written them out in full every time. Therefore, when one sees an ornament written in the score, one should investigate multiple possibilities of execution and not limit oneself to a single 'correct' approach.

Heinichen (in Kochevitsky 1974) states that ornaments change according to taste and experience. The present writer has witnessed this first hand. At the time of his performance of the Goldberg Variations in August of 2019, the present writer felt strongly about his approach to integrating the first appoggiatura in bar 1 into the melody. However, when writing this conclusion, six weeks have passed in which further research and discussion has taken place, resulting in a stronger case and possible preference for the acciaccatura-like approach of this ornament which he more vehemently

opposed in the past. This change on the point-of-view of an ornament has been further illustrated in Chapter 3 by performers who have altered their executions between multiple recordings of the Goldberg Variations. It demonstrates that time, personal taste and experience all play a role in performing ornaments. Badura-Skoda states that ornamentation “has always been a flexible matter and that any attempt to put it into a straitjacket has so far failed” (2013:115). The present writer echoes this sentiment whereby ornamentation should increasingly be considered as an organic entity that encourages freedom of expression when bringing the music of JS Bach (and other composers) to life on the modern concert stage.

Appendix 1

JS Bach: *Goldberg Variations BWV 988*, live performance in the Musaion Theatre, University of Pretoria, 3 August 2019, Gareth Edward Ross (piano):

<https://www.dropbox.com/s/5iapq9gd4z8c7kr/Gareth%20Ross%20Goldberg%20Variations.mp3?dl=0>

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