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The controversy over Bach's trills: Towards a reconciliation

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THE CONTROVERSY OVER BACH'S TRILLS:

TOWARDS A RECONCILIATION

by

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A problem confronts the contemporary performer of Bach's trills: How does one reconcile the conservative and liberal approaches to the simple trill with their conflicting arguments for upper-note, main-note, and anticipatory executions?

The first section of this document addresses trill beginnings from a historical perspective. From the early decades of the sixteenth century the Italian and German schools of ornamental practice showed a pronounced bent towards main-note trills, while the French school used upper-note trills, particularly in the domain of keyboard music.

Bach's Clavierbüchlein, as well as the scholarly treatises that were written after his death, unequivocally embrace the upper-note design. However, they are not always definitive guides to the execution of Bach's trills since there was a considerable interchange of nationalistic styles that made codification of ornaments difficult. Also the later treatises reflect the performance practices of the *galant*.

The second part is a compendium of major twentieth century scholar/performer's opinions on this issue. Each writer was categorized as essentially a proponent of upper-

note trills, both trill designs (moderate), or main-note trills. The sometimes controversial findings of Frederick Neumann were extensively used to bolster arguments for this latter category.

The third part offers selected musical examples which support upper, main-note, and anticipatory executions. Considerably more emphasis was placed on main-note trills to offset the traditional bias towards upper-note/on-beat trills. Each example was categorized in subheadings under main-note, upper-note, and anticipatory trills. These categories are presented in chart form at the end of the document.

There are two supplementary chapters dealing with additional interpretive aspects of the trill, and trills found in the mechanical organ music of Handel.

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at the University of North Carolina at Greensboro.

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PREFACE

This document will discuss primarily the simple trill, i.e., a trill independent of various prefixes. The *Pralltriller* and the *Schneller*, which may be considered shortened forms of the simple trill, will also be included.

There has been a plethora of information regarding Bach's ornaments in general and how to execute them. However, little has been done to systematically assemble and categorize these sources, or to come to terms with sometimes diametrically opposed opinions.

The purpose of this document is to explore the range of possibilities proposed in these writings, presenting additional contexts sympathetic to classification, and making available enough information so that guidelines may be drawn for main-note, upper-note, and anticipatory trills. It is hoped that these recommendations will clarify various choices available for the execution of Bach's trills that are valid, flexible, and above all convincing.

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CHAPTER I

TRILL BEGINNINGS FROM GANASSI TO J.S. BACH

J.S. Bach, in the course of his lifetime, assimilated many nationalistic trends in his music, although it is not known if he ever had a formal composition teacher. Information obtained from the obituary prepared by his son C.P.E. Bach and Johann Agricola (a former student) mentions that Bach taught himself to compose "chiefly by the observation of the works of the most famous and proficient composers of his day and by the fruits of his own reflection upon them."[1] Various French, German, and Italian composers appear both in the obituary and supplementary information provided by Johann Forkel, Bach's first biographer.

It follows that Bach's ornamental practice was also a product of the confluence of various national schools. Although it can be acknowledged that Italianate diminutions permeate Bach's sonatas and concerto movements, and that French inspired *agréments* abound in the suites and overtures, there is an intermingling of various practices as complex as the interplay of contrapuntal motives in a Bach

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[1]Hans David and Arthur Mendel, ed., The Bach Reader: A Life of Johann Sebastian Bach in Letters and Documents, (New York: W.W. Norton & Co., 1945), pp. 216-17.

fugue. This amalgamation of national and stylistic tendencies made codification all the more difficult, especially since many contemporary theorists were ambiguous in their concepts and definitions. In Musicalischer Trichter (1706), Martin Fuhrmann makes the following comment on embellishments: "In many matters musicians are as united as Samson's foxes with their burning brands, coupled indeed by their tails but with their heads far apart."[2] Alfred Kreutz writes: "In one thing only, practicing musicians and theorists were agreed, that embellishments should be learnt in their multiformity and variability solely through actual practice and living examples, not through any kind of rigid rules."[3]

Frederick Neumann has mentioned that all too often "downstream" treatises written after Bach's death have been the final guide to Bach's ornamental practice.[4] However, to ignore earlier influences in the composer's formative years is tantamount to failing to legitimately address the problem at all. The years up to 1717 (which include Bach's Weimar

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[2]Martin Fuhrmann, Musicalischer Trichter, quoted in Alfred Kreutz, "Ornamentation in J.S. Bach's Keyboard Works," trans. Reginald Snell, Hinrichsen's Musical Year Book 7 (London: Hinrichsen Edition Ltd., 1952), p. 358.

[3]Ibid.

[4]Frederick Neumann, "The Use of Baroque Treatises on Musical Performance," Music and Letters (October 1967): 315-24.

Period), as well as the composers and theoreticians who lived before Bach's time and established the traditions to which he was heir, therefore need to be summarized before any in-depth discussion of Bach's ornaments, even when limited to the trill, can be attempted.

The Italian approach to ornamental practice has been historically quite free and fluid. The earliest known treatise on diminutions, Sylvestro Ganassi's Opera intitulata Fontegara (1535), spawned a cluster of treatises toward the end of the century: Girolamo Dalla Casa (Il vero modo di diminiur, 1584), Giovanni Bassano (Ricercate passaggi et cadentie, 1585), Girolamo Diruta (Il Transilvano, 1593), and Giovanni Bovicelli (Regole, passaggi di musica, 1594). These writings first show diminution patterns for various intervals, cadential formulas, and practical applications of embellishments in contemporary compositions. Lodovico Zacconi, in his Practica di musica (1594), writes that the composer only sets down the notes to establish "harmonic" relationships, and that the singer is obliged to supplement them according to the meaning of the words.[5]

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[5]Lodovicio Zacconi, Prattica di musica, quoted in Frederick Neumann, Ornamentation in Baroque and Post-Baroque Music with Special Emphasis on J.S. Bach (Princeton: Princeton University Press, 1978), p. 22.

The tendency towards elaborate *passaggi* and the increasingly lax restrictions on the excesses of performers led to the emergence of the seventeenth century *stile moderno* with its new components of recitative, monody and thorough bass. The historical shift to music as the "mistress of the text" (to cite Monteverdi's term) played down, albeit temporarily, the preeminence of purely musical values, and along with them ornamentation. The composers of the Florentine Camerata, such as Peri and Caccini, assigned music the subservient role of enhancing the rhetorical declamation and *affect* of the words. However, towards the mid-seventeenth century the pendulum swung once more towards the preference for a more melismatic and sensual style of melodic composition. This emancipation is largely realized in the so-called *bel canto* style, and represented by composers such as Cavalli, Carissimi, Cesti, and Stradella. In the area of instrumental music, the rise of the violin sonata (beginning in the third decade of the seventeenth century) and various keyboard toccatas gave performers the opportunity once again to add diminutions and conventional ornaments to various works.

Unfortunately, in the seventeenth and early eighteenth centuries distressingly few Italian theoretical sources discuss ornamentation. However, some preferred practices did develop which were largely influenced by regional

differences. It is through the effort of a number of German theorists (e.g., Georg Muffat) who studied Italian vocal performance that these traditions were brought to the attention of a larger continental audience.

Terminology for the trill and its variants, including a new species of trill introduced in the sixteenth century consisting entirely of tone repetition, was not unified or systematic. The oscillating type was called *tremolo* by Ganassi, Diruta, and Bovicelli, but *trillo* by Cavalieri, Frescobaldi, and Trabaci. An oscillating trill-related grace ending with a turn of four notes was called *groppo* by Conforto, *groppolo* by Cavalieri, and *gruppo* by Caccini.[6]

Frederick Neumann points out that the most likely seventeenth century Italian trill design was the main-note type, which did not preclude occasional upper-note appearances, probably in deference to French models. The upper-note trill occurred at cadences as an offshoot of the stereotyped eight note formula derived from the turn family of graces.[7] At cadences, Dolmetsch notes that this very formula was the basis of Sylvestro Ganassi's *tremolo* appearing in his flute treatise Opera intitulata Fontegara (Example 1).

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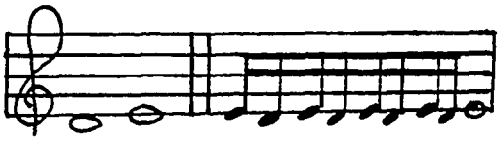
[6]Frederick Neumann, Ornamentation, p. 287.

[7]Ibid., p. 295.

Example 1: Ganassi, *tremolo*



Dolmetsch writes that this version of trill was the leading model of virtually every ornament table from 1689 to 1800, although there is no further documentation of subsequent Italian variants.[8]

One prominent eighteenth century Italian violin treatise that has received attention is Guiseppe Tartini's Regolo per arrivare a soper ben suonar il violino (1771). Frederick Neumann has noted a discrepancy between Tartini's appoggiatura trill model in the treatise and a trill exercise that was penned at an earlier date for a violin pupil. It appears in a letter to Sra. Lombardini (1760) and clearly shows a main-note start and emphasis (Example 2).[9]

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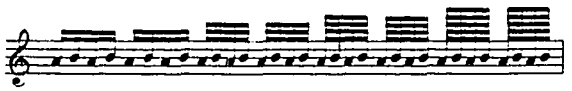
[8]Arnold Dolmetsch, The Interpretation of Music of the Seventeenth and Eighteenth Centuries, (London: Novello & Co. Ltd., 1915; reprint, Seattle: University of Washington Press, 1969), p. 167.

[9]In spite of Example 2, Neumann does note that it is easier for a beginning violinist to execute the trill on the upper note with both fingers pressed down and alternately tap the auxiliary on the strong subdivisions of the beat. Therefore Tartini's notation of a main-note trill must be considered deliberate despite pedagogical considerations. (Neumann, Ornamentation, p. 348)

Example 2: Tartini, trill exercise



Neumann has also articulated several controversial theories in the cases of Pier Francesco Tosi, author of a famous treatise on singing (Opinioni de cantori antichi e moderno, 1723) and Domenico Scarlatti, the great harpsichord composer. According to Neumann, Tosi has been mistranslated by Galliard and Agricola (his English and German translators respectively) to concur with their own upper-note/on the beat principles.[10] Later, using an old Italian dualism of the trill and mordent as the mirror inversion of each other (*tremulus ascendens* and *tremulus descendens*) Neumann hypothesizes that the indication *tremulo di sotto* or simply *tremulo* is a form of the multiple mordent, and has cited several musical examples which work effectively in Scarlatti's keyboard voicings.[11]

The role of German composers on Bach's ornamental practice has been acknowledged though frequently understated. In the case of most seventeenth century German composers, the role of Italian ornamental practice assumes a near monopoly. The main-note trill is alluded to both in

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[10]Ibid., p. 345.

[11]Ibid., pp. 352-54.

theoretical treatises from Praetorious to Furhmann, and in the practical cultivation of its designs by composers such as Froberger, Kerll, Reinken, Murschhauser, and Buxtehude.

Wolfgang Printz, in his various treatises spanning 1678-1714, treats the recurring *tremulus ascendens* and *tremulus descendens* designs as manifestations of main-note trills and multiple mordents. Georg Falck (Idea boni cantoris, 1688) and Moris Feyertag (Syntaxis minor zur Singekunst, 1695) also use this pairing of trills. Not until the turn of the century do we find the first straightforward presentation of the French appoggiatura trill: Johann Casper Fischer's French-inspired ornament table in Musicalisches Blumen Büschlein (1696) is based on the trill models of Chambonnières as is Johann Walther's in his Praecepta der musicalischen Composition (1708). Johann Beyer in 1730 still declares the main-note trill to be "the best and most agreeable" type but later adds that "for practice purposes only, one should start with the upper note."[12]

Many seventeenth century German Baroque composers notated their trills in full following the example of Italian keyboard composers of the late Renaissance and early Baroque periods. The following realizations followed by

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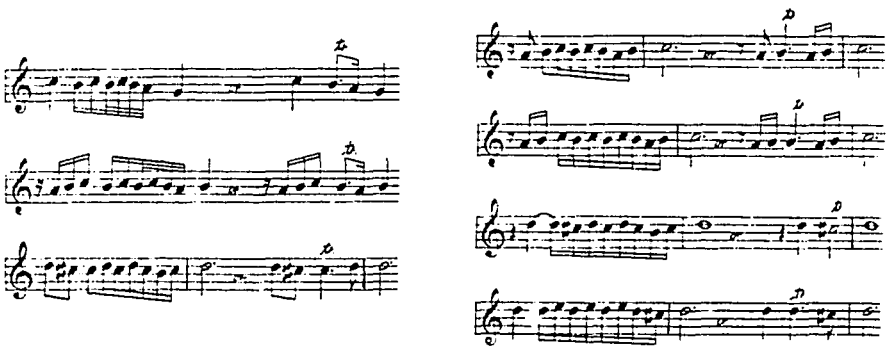
[12]Johann Beyer, Primae lineae musicae vocalis, quoted in Neumann, Ornamentation, p. 302.

their abbreviated models illustrate some of these "generic" melodic formulas (Example 3).[13] The relatively haphazard configurations of main-note and auxiliary trills indicate that the choice was primarily a melodic rather than a harmonic decision, a factor which John O'Donnell underscores as deriving from Frescobaldi.[14]

Example 3: Baroque trill realizations



Neumann writes that the idea of the French on-beat/auxiliary trill completely supplanting the older German main-note tradition is without documentation. He notes that from 1715 onwards the Italo-German main-note trill was still

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[13]The trills contained in Example 3 were taken from John O'Donnell, "Bach's Trills: Some Historical and Contextual Considerations." Musicology 4 (1974): 15-16.

[14]Ibid., p. 16.

very much in evidence, and existed concomitantly with the French design with varying degrees of emphasis. He writes that the conservative temper of the Baroque composers favored continued cultivation of the older tradition which was of local parentage. The on-beat/auxiliary rule reached full fruition with the German exponents C.P.E. Bach, Marpurg, and Türk, which rigidified into a mainline German style.[15]

John O'Donnell also cites the particularly German character of J.S. Bach's music. He notes that the harpsichord and organ toccatas and partitas were influenced by Kerll, Froberger, Pachelbel, and Buxtehude. Although numerous exceptions appear (fugues on themes of Corelli, Legrenzi, Albinoni, and Vivaldi), Bach, being trained in the line of the great German performers and musicians, would naturally turn to a more German style of ornamentation. O'Donnell notes that a table written in Cöthen in 1720 can have little bearing on work written at Arnstadt or Weimar at an earlier date.[16]

Nevertheless, the important influence on Bach of French ornamental practices can hardly be overestimated. The seventeenth century was known as the "splendid century" when the court of Louis XIV spawned such composers *de bon goût* as

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[15]Neumann, Ornamentation, p. 39.

[16]O'Donnell, "Bach's Trills," p. 17.

Chambonnières, Dandrieu, Corrette, Rameau, Fouguet, D'Anglebert, and Couperin *le Grand*.

Jean-Jacques Rousseau's treatise for the voice, Méthode claire, certaine et facile, pour apprendre à chanter la musique (1683), and the gamba, Traité de la viole (1687), are comprehensive guides to performance practices in late seventeenth century France. Instrumental and vocal music of the period does not carry a large number of symbols for ornamentation, so Rousseau discusses in some detail the appropriate contexts for adding ornaments as well as their realization. Rousseau defines "prepared" trills as starting on the auxiliary with an additional "leaning" (holding the first note for a slightly longer duration to impart accent) and "unprepared" when the first note is not prolonged and the alternations start immediately.[17] Rousseau's *cadence avec appuy* or prepared trill is an example of a trill whose preparation or *appuy* is to come slightly before or on the beat. With regard to the former, Michael Collins has made a substantial case for anticipatory trills being slurred over to stronger beats thus creating a conventional auxiliary trill. (There are more questions raised then answered in Rousseau's partially written out executions because he does not notate the repercussions for any of these trills.)

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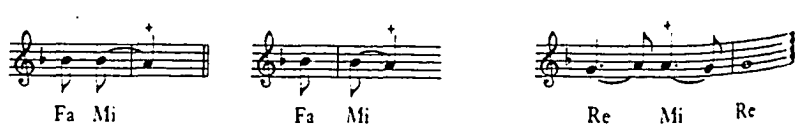
[17]Jean Rousseau, Traité de viole, (Paris: 1687), p. 83.

Rousseau's explanation for the trill without preparation (*cadence sans appuy*) is that "it is done on the natural sound of the note."[18] Collins, defending upper-note starts for both types of trill, observes that Rousseau follows the seventeenth century French vocal practice of notating trills with solmisation syllables (as well as notating the *appuy*). For example, in the trill with preparation before the beat, one sings the syllable *Mi* on the pitch *Fa* to strengthen the assertion that the trill begins with the upper note (Example 4a).[19] This is also true for the trill with preparation on the beat. In the *cadence sans appuy*, while singing the correct *solfège* vowel of the note *Mi*, one actually begins with the pitch *Fa* to initiate the trill (Example 4b):

Example 4a: Rousseau, *cadence avec appuy*
b: Rousseau, *cadence sans appuy*

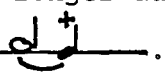
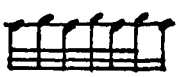
a b



[18]Jean Rousseau, Méthode claire, certaine et facile, pour apprendre á chanter la musique. (Paris, 1683), p. 54.

[19]A cross notated above the note is used to indicate the trilled pitch.

A similar analogy can be applied to keyboard music where a notated finger number over a trill can belie the fact that the trill begins on the finger above, a frequent occurrence in Couperin's L'Art de toucher le Clavecin.[20]

The actual beginning of a prepared trill after a falling second has been a point of contention among Baroque scholars. For example, Aldrich notes that in such cases the trill always begins with the upper note. The upper note or *appuy* had to be indicated by a note of longer duration than the succeeding main note of the trill  .[21] However, the point where the repercussions began was customarily left to the performer. Neumann observes that the trill after a descending second fulfills the requirements of an upper-note trill. The only stipulation is that after the resolution of the appoggiatura the alternations be main-note "anchored." (Example 5)[22] (Neumann has defined "anchor" as a continued emphasis on a particular note, e.g., main-note anchor would be illustrated by  as opposed to )

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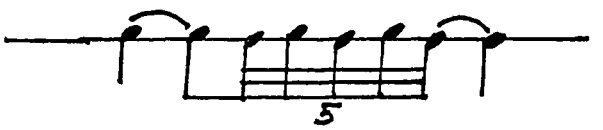
[20]Michael Collins, "In Defense of the French Trill," JAMS 26 (1973): 422.

[21]The trill begins on the half note.

[22]Neumann, Ornamentation, p. 333.

Example 5: Trill after a descending second with main-note anchor



Most French composers from G.G. Nivers to Rameau and Couperin included an ornament table in editions of their keyboard music. The French, with their penchant for precision and orderliness, were among the first to illustrate their tables utilizing arbitrary symbols. Nevertheless, seventeenth century nomenclature by French composers was often unclear, particularly with regard to on-beat renditions of *port de voix*, *cadence*, and *double cadence*.

In 1670 Chambonnières published his Les Pièces de clavessin which was the first French harpsichord publication to include a table of ornaments. His trill model  would be the standard fixture of later keyboard ornamentation tables. This identical pattern can be found in La Begue (1677), Raison (1688), D'Anglebert (1689), Chaumeon (1696), Saint Lambert (1702), Dieupart (c. 1702), and Le Roux (1705). Michael Collins has scrutinized French Baroque writers and has concluded that, with the exception of Lacassagne (1766), there are no illustrations of main-

note trills.[23] D'Anglebert outdistanced all of his contemporaries by prefacing his book of harpsichord pieces with no less then twenty-nine ornamental symbols and their appropriate realizations. Many later composers followed suit. It is a well known fact that J.S. Bach's ornament table is identical to the table in D'Anglebert's Pièces de Clavecin.

Frederick Neumann concedes that the on-beat/auxiliary trill is certainly in preponderance in French ornament tables from the early part of the eighteenth century, but adds that trill designs were less rigid in non-keyboard music, and the likelihood of anticipated auxiliaries with main-note entrances on the beat is quite strong.[24] In addition, these trills are main-note anchored.

François Couperin appears to have favored beginning trills on the upper auxiliary in all musical contexts. He writes in L'Art de toucher le clavecin (1716), "whatever the note on which the trill is shown it must invariably be begun on the tone or semitone above."[25] His *tremblement continu* from the first book of his Pièces de Clavecin (1716) clearly illustrates this. However, Neumann is quick to point out

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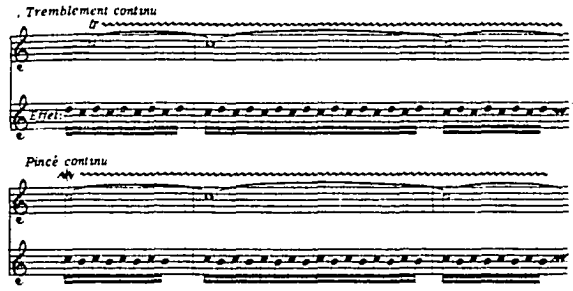
[23]Michael Collins, "In Defense," p. 437.

[24]Neumann, Ornamentation, p. 262.

[25]François Couperin, L'Art de Toucher le Clavecin, (Sherman Oaks: Alfred Publishing Co., 1974), p. 23.

that there is an extra sixteenth note in the first measure, and that with the exception of this first note the *tremblement continu* (Example 6) is the exact mirror image of the *pincé continu* (multiple mordent). This first note seems to suggest that it is anticipatory in nature (Neumann's so-called "grace note" trill is discussed below) and comes before the beat, with the main note occurring on the beat in subsequent repercussions. He also writes that if the conventions of the "rule" are to be observed, a trill on "C" would be identical to a *pincé* (mordent) on "D," something that Couperin probably never intended and which violates the role of trill as the mirror image of the mordent.[26]

Example 6: Couperin, *Tremblement continu, pincé continu*



Neumann has suggested through information gleaned from treatises as well as notational evidence that the French *clavecin* composers were not as methodical as they might have seemed. Although the evidence in the domain of keyboard

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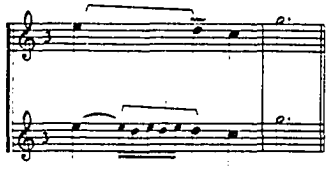
[26]Neumann, Ornamentation, pp. 263-66.

music for upper-note starts is impressive, an undercurrent of main-note trills, chiefly in the domicile of vocal and instrumental music, was extant. There also was no ironclad rule about on-beat entrances. According to Neumann, Couperin's *tremblement lié sans être appuyé* (Example 7) is an example of an anticipatory trill due to the composer's stringent perpendicular alignment of notes (though this evidence is disputed by Collins).

These examples suggest that Couperin, despite being firmly rooted to the auxiliary tradition, made greater use of anticipation than has been heretofore supposed. The main note, although it does not begin the trill, occurs on all major subdivisions of the beat.[27]

Example 7: Couperin, *tremblement lié sans être appuyé*



After Couperin, various French composers continued the convention of upper-note starts. Rameau (1706 and 1724), Hotteterre (1707), Dandrieu (1724), and Corrette (1758) all show this predilection in their ornament tables.

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[27]Ibid., pp. 285-86.

Toward mid-century, there is an increasing tendency for divergent trill designs in France. For example, the Belgian composer Charles Joseph van Helmont, in his "Fuga Prima" from Pièces de clavecin, Op. 1 (1737), has many written-out prepared main-note trills. The *cadence subite* (also *jettée, precipitée, coupée*) was used with various connotations for main and upper-note trills depending on the composer. It seems almost certain that the terms did denote a trill whose alternations began immediately, hence without preparation or a suffix. Therefore, a full range of trill designs was probably in practice.[28]

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[28]Ibid., p. 275.

CHAPTER II

TRILL BEGINNINGS IN EIGHTEENTH CENTURY TREATISES AFTER BACH

The only guide to ornamentation by J.S. Bach is contained in the Clavierbüchlein prepared for his son Wilhelm Friedemann. The ornament table, headed *Explication unterschiedlicher Zeichen, so gewisse Manieren artig zu spielen, andeuten* (Explanation of various signs, showing how to play certain ornaments correctly), was intended to help his son play the most common ornaments by notating them in their most general configuration. In addition, several authors have pointed out that the functional value of this ornament table is questionable since it was designed for a nine year old boy and did not include several other ornaments (the *acciaccatura* and the *Schleifer*). A facsimile of the *Explication* appears below followed by the table printed in modern notation (Example 8a and b).[1]

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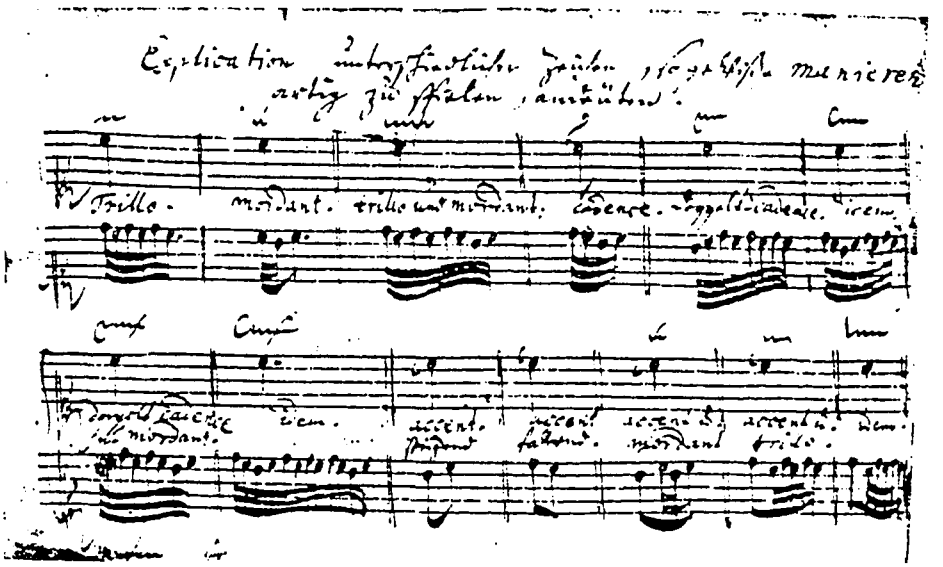
[1]The trill designs from the table that are pertinent to this document are numbers 1, 3, 12, and 13. It will be noted that Bach only notates upper-note trills.

Example 8a: Facsimile of Clavierbüchlein ornament table
b: In modern notation

a



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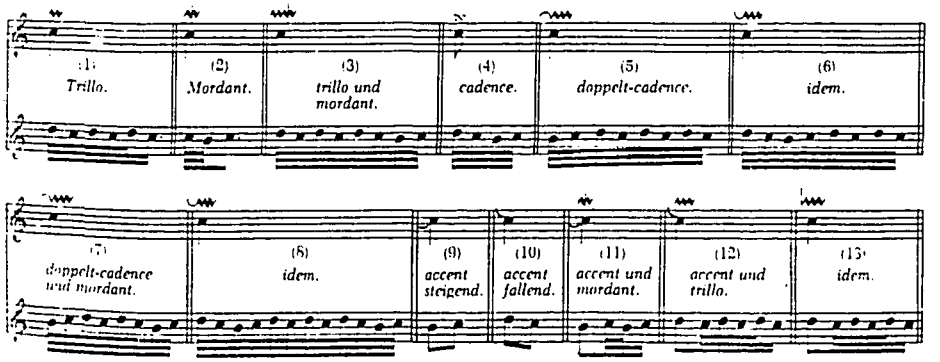

One must rely on treatises written subsequent to Bach's death in 1750 as compendiums of contemporary performance practice. However, the emergence of the *galant* and *empfindsamer Stil* toward mid-century redefined the expressive function of music. The treatises do not disregard the ornamental practices of J.S. Bach, but neither do they provide a scholarly record of it. Neumann has questioned the use of these "downstream" treatises on the grounds that it was impossible to codify all the conflicting trends brought on by the exchange of nationalistic practices in Europe during the first half of the eighteenth century.[2] Regarding the beginnings of trills, Neumann has argued that the introduction of the French upper-note trills could not have suddenly usurped the stronger Italo-German main-note tradition early in the century, but that they gradually grew in strength and rigidified into the type of mainline German style represented by C.P.E. Bach, Marpurg, and Türk.[3] However, even within France, Neumann has pointed out a peculiar scarcity of treatises after 1750 and a lack of circumstantial evidence for upper-note starts in every context, particularly in the case of the *tremblement lié*.[4] Conversely, Putnam Aldrich notes that after 1750 the basic

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[2]Neumann, "The Use of Baroque Treatises," p. 318.

[3]Neumann, Ornamentation, p. 311.

[4]Ibid., p. 283.

rule did not change. He writes that not until the last decade of the eighteenth century is there found any documentation advocating a departure from the principle of upper-note starts (Milchmeyer, The True Art of Playing the Pianoforte, 1797). Even there the trill beginning with the main note was exceptional and had to be indicated by a small note preceding the main note:[5]

Example 9: Main-note trill

Aldrich cites C.P.E. Bach (Versuch, 1753, 1762), Marpurg (Anleitung zum Clavierspielen, 1755), Albrecht (Gründliche Einleitung, 1761), Petri (Anleitung zur practischen Musik, 1767), Reichardt (Ueber die Pflichten, 1776), and Wolf (Unterricht im Klavierspielen, 1783) as German advocates of auxiliary starts in all cases.

C.P.E. Bach was a steadfast proponent of the upper-note/on the beat rule. In his Essay on the True Art of Playing Keyboard Instruments (1753, 1762), he illustrates the auxiliary trill (Example 10). He writes "since it always begins on the tone above the principal note, it is

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[5]Aldrich, "The Principal *Agréments*," p. 351.

superfluous to add a small note unless this note stands for an appoggiatura:"[6]

Example 10: C.P.E. Bach, trill realization

In his treatise On Playing the Flute (1752) Quantz writes, "Shakes add great lustre to one's playing, and, like appoggiaturas, are quite indispensable. If an instrumentalist or singer were to possess all the skill required by good taste in performance, and yet could not strike good shakes, his total art would be incomplete."[7]

Quantz's basic trill model is shown below (Example 11). It is curious that Quantz appended a subsequent explanation that the trill proper is to be preceded by a *Vorschlag*. Neumann has hypothesized that since Quantz categorized the various *Vorschläge* into *Anschlagende* (long appoggiaturas on the beat) and *Durchgehende* (short anticipated appoggiaturas) there is no reason why both types could not introduce a

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[6]C.P.E. Bach, Essay on the True Art of Playing Keyboard Instruments, translated and edited by William J. Mitchell, (New York: W.W. Norton, 1949), p. 100.

[7]Johann Quantz, On Playing the Flute, translated by Edward R. Reilly, Second Edition, (New York: Schirmer Books, 1985), p. 101.

trill. Also since Quantz writes that the appoggiatura is frequently as rapid as the notes of the trill, Neumann extrapolates that the anticipatory or "grace note" trill satisfies consistency of design with the main-note anchor of Quantz's model (Example 12).[8]

Example 11: Quantz, trill model

Example 12: Quantz, trill model realized by Neumann

Neumann calls attention to a quote from Dolmetsch that he maintains was mistranslated. Dolmetsch's passage reads: "The *Vorschlag*, (i.e., appoggiatura) be it long or short, must always be accented." Neumann notes that the German phrase "*mit der Zunge angestossen*" means "articulated by the tongue" and refers simply to fresh articulation, which can be done as softly or as loudly as one chooses."[9]

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[8]Neumann, Ornamentation, p. 376.

[9]Ibid.

As a final example of a main-note beginning, Neumann cites Quantz's discussion of short main-note trills in rapid succession: "If trills are written over several fast notes, on account of shortness of time both *Vorschlag* and *Nachschlag* are not always done; but time and again only a half trill is made."[10] A half trill after the excision of *Vorschlag* and *Nachschlag* is a *Schneller*.

With Quantz's attention to detail and obvious finesse it is curious (according to Neumann) that he does not once mention the notation of the conventional appoggiatura trill though he alludes to its utilization.[11]

Friederich Marpurg's writings, Anlietung zum clavierspielen (1749 and 1755), Principes du Clavecin (French translation of Anleitung), Der critische Musicus (1760), and Die Kunst das Clavier zu spielen (1762), present no ambiguity regarding trill design. All forms of the trill (with the exception of the *ribittuta*) are begun with the upper auxiliary which Marpurg defines as a series of descending appoggiaturas.[12] The one exception is the slurred trill which in certain circumstances (e.g., fast descending passages) can shed the first note and start

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[10]Johann Quantz, On Playing the Flute, p. 229.

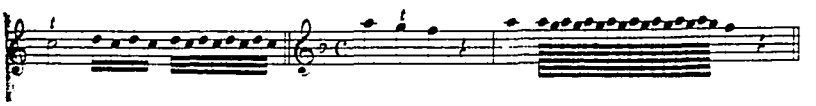
[11]Neumann, Ornamentation, p. 379.

[12]Friederich Marpurg, Principes du clavecin, (N.p., 1756; reprint, Bologna: Forni Editore, 1971), p. 66.

immediately with the main note. Since Marpurg specifically equates this ornament with C.P.E. Bach's *Pralltriller*, the likelihood increases that the latter himself allowed for this practice in a fast tempo.

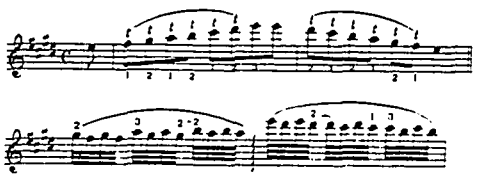
Leopold Mozart's A Treatise on the Fundamental Principles of Violin Playing (1756) is heavily indebted to Tartini, although Mozart never credits his sources. Like Tartini's, Mozart's basic trill model embraces upper-note start and anchor:

Example 13: Leopold Mozart, trill realizations



However, Neumann points out that in practice Mozart's trill designs sometimes produce technically ungrateful as well as musically awkward passages on the violin. For example, the alternation of trills on the first and second fingers (which requires a quiet shift while the shaking finger continues imperceptibly) cannot be executed without creating awkward fingerings and objectionable rhythmic hitches (Example 14).

Example 14: Leopold Mozart, trills and trill fingerings



Although Mozart, in his introduction, remarks that the upper finger begins in conjunction with the lower and alternatively taps on the major subdivisions of the beat (like Tartini), he does not expressly articulate an ironclad rule of upper auxiliary start of the trill in every musical context.[13]

It is now necessary to discuss and contrast C.P.E. Bach's "half trill" or *Pralltriller*, and the *Schneller*," sometimes erroneously called the "inverted mordent." The half trill is shorter than a regular trill; its melodic configuration is similar to a *tremblement lié* but it is more rhythmic in function and executed with more speed and vigor (Example 15). Bach writes that "the half or short trill is the least dispensable,' the most attractive, but at the same time the most difficult embellishment."[14] Bach denotes a difference between the *chevron* of three waggles indicating regular trill ~~~ and two waggles ~~ standing for the

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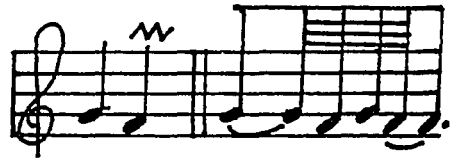
[13]Neumann, Ornamentation, p. 381.

[14]Ibid., p. 110.

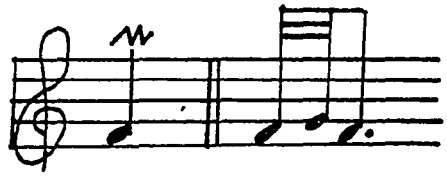
shorter *Pralltriller*.

Example 15: C.P.E. Bach, *Pralltriller* realization



The *Schneller* or "snap" can be defined as a three note miniature trill beginning on the main note (Example 16). It usually begins on the beat and is reserved for disjunct (skipping) staccato passages. Although written as an abbreviated main-note trill the nature of the *Schneller* is cast in doubt because of Bach's slightly ambiguous wording: "in its employment as well as its shape it is the opposite of the mordent, but its tones are identical with those of the short trill."[15]

Example 16: *Schneller* realization



The confusion between the *Pralltriller* and the *Schneller* is really only one of first note duration. Bach

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[15]Ibid.

maintained that the *Pralltriller* still begins on the upper auxiliary. However, Marpurg, addressing this issue along with his comparable *tremblement lié*, notes that in certain instances the tied note can be shed thus forming a three note *Schneller*.[16] In any case, the *Schneller*, according to C.P.E. Bach, is a main-note trill in that it is never tied over.

Example 17: Marpurg, *tremblement lié* realization

Bach implies that he invented the *Schneller*: "Its execution suggests that this ornament, not mentioned by other writers, might be called the *Schneller*."[17] Although it cannot be ascertained if Bach was motivated by a false sense of pride in his "unveiling" of the *Schneller*, it seems certain that he coined the term with special reference to its technical execution on the clavier. However, several writers (Neumann, Lanning, and Bodky) point out that historically C.P.E. Bach was not correct in his assessment of the ornament's parentage: earlier composers such as

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[16]Marpurg, Principes, p. 48.

[17]C.P.E. Bach, Essay, p. 142.

Diruta, Praetorius, Herbst, Prinz and Feyertag had made prior use of it.

This discussion has affirmed that the overwhelming number of treatise writers were in favor of upper-note trills. However, the fact that the writers did not always explicitly state this rule verbally, coupled with a lack of categorization for all trill types, makes the treatises less than definitive or comprehensive guides to the execution of Bach's trills.

CHAPTER III

TRILL BEGINNINGS: SUMMARY OF TWENTIETH CENTURY WRITERS

The following is a summary of leading twentieth century writer's views on beginning Bach's trills. The authors are grouped in categories: Members of the first group (Aldrich through Dehnhard) are firm proponents of auxiliary trills, the second group (Lanning through Dadelson) are "moderates" (i.e., the majority of Bach's trills begin with the upper note with some notable exceptions), and the third group (Beyschlag, Busoni, and Neumann) generally favor main-note trills with some exceptions.

Proponents of Upper-Note Trills

Putnam Aldrich

Putnam Aldrich totally supports the orthodox rule for trill beginnings. He states unequivocally, "All the authorities, both in their written descriptions and in their tables, are in agreement upon two points which may be accepted as general rules with no exceptions: 1) All trills begin with the upper auxiliary unless they are introduced by a prefix from below, and 2) all trills begin on the beat. This is true even when there is a slur mark between the note

bearing the trill and the preceding note."[1]

According to Aldrich, Bach's ornament practice was precipitated by the *agrément* conventions of the late seventeenth and early eighteenth century *clavecin* composers. The use of trills before cadences was one of the most expressive functions of music, and one which had been promulgated since the sacred music of the Medieval period. Even Gregorian chant (in recitation sections of the Mass and Office) has sections of text intoned on a single note with fluctuations of the voice only at the beginning, middle, and end.

The accentuation of the penultimate beat, with the heightened rhythmic and melodic activity of the trill, was gradually divided into two forms during the seventeenth century: the simple trill (*tremblement*) and the trill with termination (*cadence*). So interchangeable were *tremblement* and *cadence* that the French considered the terms synonymous. According to Aldrich, "the whole ornament is, in reality, an amplified appoggiatura, and represents the highest development of that sort of musical expression which can be obtained through emphasis of the penultimate beat."[2]

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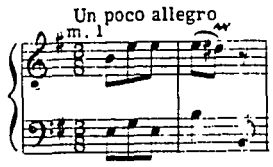
[1]Aldrich, "The Principal *Agréments*," pp. 325-26.

[2]Aldrich, Ornamentation in J.S. Bach's Organ Works, (New York: Coleman-Ross Co., Inc., 1950), p. 19.

This dissonant appoggiatura quality carries over into non-cadential situations as well. One important example is the "short trill." (A *tremblement* on eighth or sixteenth notes placed where an appoggiatura would be appropriate but where the composer desired heightened melodic activity.[3]) Aldrich uses the following excerpt from the Fourth Organ Trio Sonata:

Example 18: Bach, Trio Sonata no. 4, BWV 528, III, mm. 1-2



The excerpt is clearly an example of a "problematic" trill following a descending second. Aldrich notes that when trills occur on weak beats in the *tremblement lié* design, the appoggiatura (written in conventional notation) can be tied over to where the trill begins. For this reason, he concludes that the trill still begins with the upper note (Example 19):

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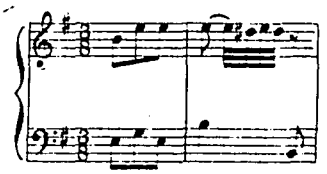
[3]Ibid., p. 28.

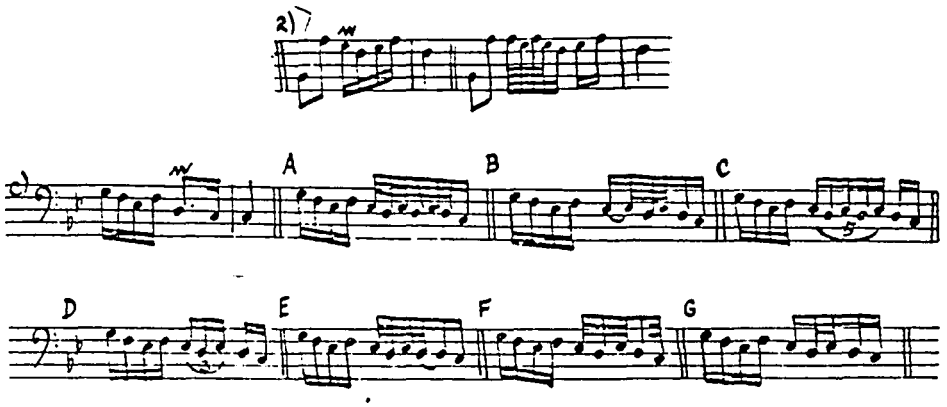
Example 19: Bach, Trio Sonata no. 4, BWV 528, III, mm. 1-2, trill realization by Aldrich



Aldrich goes on to cite the major French treatise writers from the years 1685-1750 (Bacily, Rousseau, Loulié, Saint Lambert, Brossard, Chambonnières, L'Affilard and Couperin) as all staunchly defending the upper-note/on-beat principle. When discussing trills not included in J.S. Bach's ornament table (such as the *Schneller* and the *Pralltriller*), Aldrich is quick to reformulate them in terms of conventional Baroque trill principles. He writes that the short trill in no way alters the basic form of the conventional trill. Aldrich concedes that an altered rhythmic interpretation may be necessary but the difference is the *number* of oscillations, not in any change of form. Aldrich quotes the German theorist Georg Muffatt (Florilegium II, 1698): "The number of notes may (must, in fact, in most cases) be reduced to four but an interpretation consisting of three notes is quite impossible, else the ornament would cease to be a trill, which, by definition must *start on the upper auxiliary and*

end on the main note."[4] The following table presents some rhythmic variants of the Bach trill. Line #2, and line c, letters B, D, F, and G are all illustrations of short trills which still adhere to the rule.[5]

Example 20: Aldrich, trill realizations



In a later article (1963), Aldrich discusses the *Schneller* in certain problematic passages such as the "sigh motive."[6] In many situations where Bach employs this motive the use of the upper auxiliary leads to consecutive octaves or fifths. Aldrich argues that the utilization of the *Schneller* in the Invention in C Minor, while alleviating the consecutive octaves, would not ornament the resolution of

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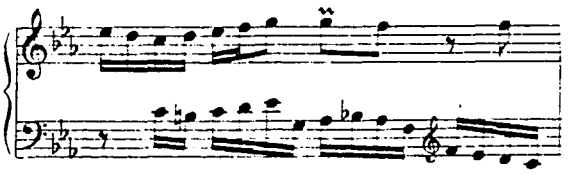
[4]Aldrich, "The Principal *Agréments*," p. 330.

[5]The author has retained Aldrich's lettering to separate his various trill realizations. (Ibid., p. 432.)

[6]Putnam Aldrich, "On the Interpretation of Bach's Trills," Musical Quarterly 49 (1963): 289-310.

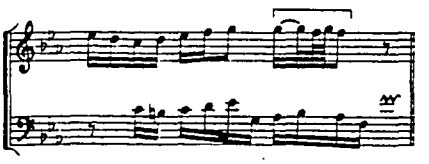
the dissonance.

Example 21: Bach, Invention in C Minor, BWV 773, m. 3



Aldrich therefore proposes a trill with "beatings" on the *second* eighth note of the descending second. This would change the role of the first trilled eighth note to a preparatory note with the trill proper beginning on "F." According to Aldrich, not only does this solution avoid consecutives but it obeys the laws of correct trill interpretation: the first note represents the upper auxiliary, the second note represents the *point d'arrêt* on the main note, and the trill comes in between.

Example 22: Bach, Invention in C Minor, BWV 773, m. 3, trill realization by Aldrich



Aldrich's interpretation has been criticized because it suggests that Bach deliberately wrote trills over the wrong

note. John O'Donell has written that Aldrich's reformulation of the sigh motive is a literal realization of another French ornament. Bach could hardly have prescribed this ornament for deliberately Italianate works such as the Italian Concerto. O'Donnell further notes that Bach did use this ornament in works of a more pronounced French character. When Bach utilized it he marked the trill over the second note.[7]

Ralph Kirkpatrick

The eminent American harpsichordist Ralph Kirkpatrick prefaced his 1938 edition of the Goldberg Variations with some concise notes on ornamental performance practice. Kirkpatrick cites Bach's *Explication* but notes that the mid-century treatises of C.P.E. Bach, Quantz, Marpurg, and the French ornament tables and treatises by St. Lambert and Couperin, are a far more valuable source of pertinent information. Kirkpatrick believes that the sometimes ambiguous nature of symbolized ornamentation leaves a certain spontaneity to performance while clarifying the composer's harmonic and melodic intentions. However, his view is that the tasteful and expert application of ornaments to the musical fabric is grounded in certain immutable rules with which the performer would do well to

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[7]John O'Donnell, "Bach's Trills: Some Historical and Contextual Considerations," Musicology 4 (1974): 21-22.

acquaint himself. Quite open to argument is the statement that "after enough experience one finds that seemingly arbitrary rules come to be thoroughly justified and explained by musical feeling."[8]

Kirkpatrick is adamant about the rule: "It cannot be too emphatically stated that the Bach trill *always begins with the upper note* in accordance with the nearly unanimous directions of eighteenth century instruction books."[9] Kirkpatrick gives scant attention to the numerous places in Bach's music where adherence to this rule causes certain contrapuntal and voice leading anomalies. He dismisses these few exceptions as "having no bearing on the work before us, and certainly not being taken into account by the people who realize trills from below."[10]

Kirkpatrick, like Dolmetsch and Aldrich, stresses the appoggiatura quality of the upper auxiliary trill and its capacity for accentuation of the dissonance; such qualities are not found in the main-note trill which has only the weaker character of a changing note.[11] Kirkpatrick will not abandon the rule even when an unusual context might

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[8]Ralph Kirkpatrick, "Preface," in Johann Sebastian Bach, Goldberg Variations, (New York: G. Schirmer, 1938), p. xi.

[9]Ibid., p. xiii.

[10]Ibid. (Presumably Kirkpatrick meant trills beginning on the main note.)

[11]Ibid., p. xiv.

suggest an exception. For example, Variation Twelve of the Goldberg Variations is a canon at the fourth in inversion. The opposition of the trill (in the form of a *Schneller*) and the mordent is not utilized to maintain the strictness of the canon.[12] According to Kirkpatrick, the *Schneller* can only be written out in small notes and this does not occur in J.S. Bach's music.

Kirkpatrick slightly modified his hard-line stand on beginning Bach's trills nearly a half century later.[13] He notes that his 1938 remarks could logically be criticized for undue reliance on the mid-century treatises. However, certain practices (such as short appoggiaturas, anticipation of ornaments and main-note trills) are possible but not advised in the treatises.[14] Kirkpatrick believes that it is possible to accentuate the main note so that the upper note sounds anticipatory in nature. But it is not mandatory to begin with the main note or contemplate other drastic solutions (e.g., the *Schneller*) even in places where parallels would be created. Such an attitude represents only a slight concession from Kirkpatrick's earlier position

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[12]The juxtaposition of trill and mordent in this canon is clarified in the section dealing with Walter Emery.

[13]Kirkpatrick's updated views are set forth in Interpreting Bach's Well Tempered Clavier (1984).

[14]Ralph Kirkpatrick, Interpreting Bach's Well Tempered Clavier: A Performer's Discourse. (New Haven: Yale University Press, 1984), p. 25.

with its basic adherence to the rule.

Hans Bischoff

Rosalyn Tureck

Joseph Banowetz

These three writers have issued performance editions of some of Bach's keyboard works.[15] They all take the position that the Bach trill begins on the upper note and on the beat.

Banowetz agrees with other scholars that parallel fifths are unacceptable in Baroque music. He also cites C.P.E. Bach's dictum that "harmonic outlines should never be blurred."

As an example of the latter he cites the Fugue in D Minor, where Bach's staccato on "B-flat" leads to a trill on "G" (Example 23). An upper-note trill would not highlight either the leap of a third or the staccato touch. Banowetz proposes a compromise: a prepared main-note trill with the upper note actually beginning the repercussions:

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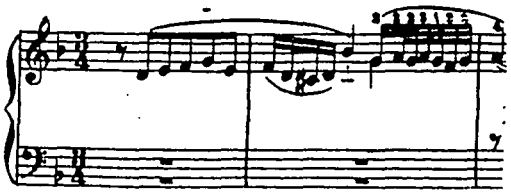
[15]Bischoff's Bach editions are published by Kalmus, Tureck's by Oxford University Press, and Banowetz's by Kjos West.

Example 23: Bach, Fugue in D Minor, BWV 851, mm. 1-2, trill realization by Banowetz



Robert Donington

Robert Donington is decidedly biased in favor of the upper auxiliary/on-beat convention.[16] He allies himself with the conservative camp of Aldrich, Dolmetsch, Kirkpatrick, Klotz and, to a lesser extent, Emery, in viewing the trill as a primarily harmony-enriching device that also heightens melodic activity.

Donington's central conclusion is that all trills are harmonically grounded, an outgrowth of their dissonant function at cadences. He calls attention to the disparate role of trills during the Renaissance and Baroque periods. For example, a late Renaissance composer would be likely to terminate a cadential pattern in the following manner using the trill on the penultimate beat. Here the dissonance is present in the written progression (Example 24):

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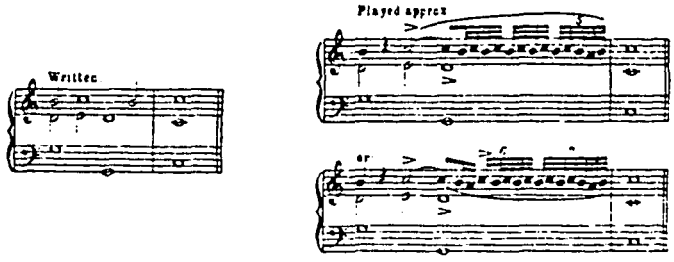
[16]Robert Donington, The Interpretation of Early Music. (New York: St. Martin's Press, 1974), pp. 239-46.

Example 24: Renaissance trill realization[17]



A late Baroque composer would be more likely to write:

Example 25: Baroque trill realization

The juxtaposition of the soprano "C" with the harmonic "G" produces a dominant 5-4 chord that is resolved to a dominant 5-3 followed by the tonic chord.

Donington repeats the oft-cited claim that, without exception, every major seventeenth and eighteenth century treatise writer supports the upper-note rule: Bacilly, Tosi, Loulie, Rousseau, Hotteterre, L. Mozart, Couperin, C.P.E. Bach, Marpurg, and Quantz.

In an echo of Couperin's maxim, Donington makes a distinction between obligatory and optional graces. The

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[17]Examples 24 and 25 were taken from Donington, The Interpretation, p. 240.

difference is more of function then of substance: Donington states that to leave out standard cadential trills where they are implied (i.e., by disguising their appoggiatura function with weaker main-note or anticipatory trills) is equivalent to playing a wrong note. He writes: "It is because of their modification of the harmony and particularly of cadential harmony that Baroque trills are so often obligatory and not merely optional ornaments."[18]

After emphasizing the traditional trill rule at cadences, Donington is slightly ambiguous as to other contexts. Although he states that it would not be invariably wrong for a performer to play main-note trills in inauspicious melodic passages, stylistic conventions might be violated. Later he writes that "melodic" trills are not permissible except in very sporadic contexts.

Donington notes that the Baroque ear took the upper-note start for granted, but attached the label "prepared" if the upper note was significantly prolonged (hence accented), or "unprepared" if the note was not significantly prolonged. He further states that the trill was so equated with an appoggiatura that a little note preceding the trill was used to denote the prepared trill.[19]

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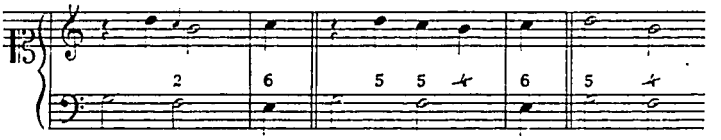
[18]Donington, The Interpretation, p. 241.

[19]It is interesting that Emery and Neumann have argued for a different interpretation (see Emery, p. 56).

In regards to the grammatical correctness of ornament interpretation, Donington is forgiving if parallels cannot be avoided. Donington notes that Telemann's Musicalisches Lob Gottes (1744) includes "eye fifths" produced "by certain appoggiaturas and so-called ornaments."[20]

Example 26: Telemann, Musicalisches Lob Gottes



Donington states that ornaments creating consecutives, when well covered and not contained in outside parts, are acceptable. He even justifies parallels in outside voices as still sounding inherently right. According to Donington, when aural unpleasantries become excessive a bit of clever rhythmic adjustment can alleviate the situation. But if grammatical incorrectness cannot be removed without falsifying the ornament, the performer should consider

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[20]Donington cites the following "rule" which he claims is supported by notated examples of Baroque composers: "When, of two notes moving in parallel fifths, one is an accented passing note resolving by step before the other has changed, the progression is correct." (Donington, The Interpretation, p. 637.)

omitting the ornament entirely.[21]

Donington summarizes his viewpoints as follows:

> The early Baroque trill begins on the beat: with its upper note, if cadential and harmonic; with its main note or its upper note indifferently if non-cadential and harmonic. The later baroque trill begins on the beat: with its upper note, if cadential and harmonic (from functional necessity); likewise, and almost though not quite invariably, with its upper note, even if non-cadential and melodic (apparently from analogy and force of habit).[22]

The exceptions that Donington refers to (with a direct reference to Neumann) are certain early Baroque southern German organist-composers who found it expedient to notate main-note trills in their manuscripts. To Donington this is "valuable but not an extensive nor altogether novel discovery."[23]

Hans Klotz

Arnold Dolmetsch

Hans Klotz is a hardliner on the conventional trill theory who believes that Bach's table in his *Explication* is the only reference tool for the proper realization of his ornaments. He writes that Bach's trill "starts always with the auxiliary and stops after a few repercussions to end

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[21]Ibid., p. 637.

[22]Ibid., p. 635.

[23]Ibid., p. 633.

with the unadorned sound of the main note."[24] Klotz also follows the normal on-beat rule and uses the many tables of the French *clavecin* composers to support his claim (though he does deride them for their "coarse metrical simplifications"). In one concession to the main-note school, Klotz cites Murschhauser's main-note trill of 1703 but then dismisses it as following sixteenth century Italian designs. Klotz also notes that Buxtehude's and Lübeck's written-out main-note trills may have had a minor impact on Bach's ornamental practices.

Arnold Dolmetsch was one of the first writers (1915) to give unqualified support to the rule. He writes that the main components of the shake are 1) "A principal note, part of the harmony, and an auxiliary note a whole tone or semitone above it, and 2) the rapid alternation of these two notes so that the accent falls upon the upper note, at least at the beginning."[25] His single example is the fugue subject from the Fugue in D Minor, with a suggested auxiliary beginning (Example 27):

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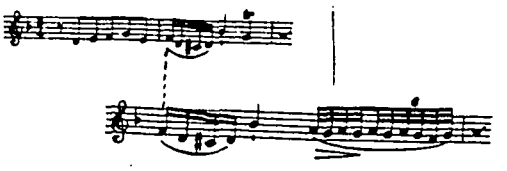
[24]Frederick Neumann, "Interpretation Problems of Ornament Symbols and Two Case Histories: Hans Klotz on Bach, Faye Ferguson on Mozart," Performance Practice Review 1 (1988): 22.

[25]Arnold Dolmetsch, The Interpretation of Music of the Seventeenth and Eighteenth Centuries. (London: Novello & Co. Ltd., 1915; reprint, Seattle: University of Washington Press, 1969), p. 155.

Example 27: Bach, Fugue in D Minor (WTC I), BWV 851, mm. 1-2



To further underscore his acceptance of the conventional trill rule without exception Dolmetsch writes,

> Bach's ornamentation agrees 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 any exceptions about the execution of shakes or any other ornaments in his music.[26]

Willard Palmer

Willard Palmer is an educator, musicologist, and editor who is well known in America chiefly for his scholarly editions of piano music.[27] In the introduction to his 1981 edition of the Well Tempered Clavier, Book I, Palmer states that the musical text (engraved in darker print as distinct from Palmer's editorial suggestions in lighter print) "is the most accurate and authentic representation of J.S. Bach's own autograph manuscript that

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[26]Ibid., p. 168.

[27]Mr. Palmer is an editor for Alfred Masterwork Editions, Van Nuys, California.

has been published to date."[28]

Palmer's attitude toward Baroque trills seems to reflect a second generation continuation of the Dolmetsch-Aldrich-Donington camp of scholars and possibly (since his editions are so widely used and respected) may explain in part the blind acceptance of the upper-note trill rule by so many modern day teachers and performers. Palmer begins by stating that *all* trills begin on the upper note.[29] After citing the pioneering efforts of Dolmetsch and other scholars in Baroque performance practice, and the near unanimous agreement on the upper-note trill by the Baroque treatises, he states: "It is amazing and annoying that we still so frequently encounter trills beginning on the main note and/or ahead of the beat, not only in recordings of famous artists, but also in lectures and articles by musicians who should know better."[30]

In the case of consecutives arising from a literal application of the rule, Palmer dismisses a main-note approach as a "serious violation of Baroque style." Instead, according to Palmer, the performer should consider a rhythmic adjustment of the trill.

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[28]Bach, J.S. The Well-Tempered Clavier. Volume I. Edited by Willard A. Palmer. Van Nuys: Alfred Publishing Co. Inc., 1981, p. 4.

[29]Ibid., p. 14.

[30]Ibid., p. 18.

Walther Dehnhard

Dehnhard has collaborated on some of the Vienna Urtext Editions of Bach, and provides some commentary on ornamentation in his preface. He advocates that all trills begin on the auxiliary and exactly on the beat, even when they follow a descending second. He makes the surprising statement that Bach's prepared upper-note trills (from the ornament chart in the Clavierbüchlein) are exceptional cases where the upper note is not repeated, which suggests that he did not understand the prepared trill or the *tremblement lié*.

Moderates on Trill Beginnings

Russell Lanning

Lanning's book Bach Ornamentation dates from the early 1950's, and is notable for its annotations of every ornament in a selected number of keyboard pieces. After a concise analysis of the various signs and symbols, a performing version of each piece follows with ornamentation fully realized according to Lanning's precepts. While Lanning's intentions were probably to clarify rules of ornamentation for the inexperienced Bach player, the reader may question the breadth or scholarship of Lanning's sources. The book contains no bibliography although Lanning makes some references to Quantz, Marpurg and C.P.E. Bach. That Lanning

belongs in the upper auxiliary "camp" is evidenced by the following quote: "The shake (trill) with Bach should almost always start on the upper auxiliary and be played in time."[31] However, a number of exceptions immediately follow. Lanning states that shakes may start on the principal note at the start of a piece or section. However, their frequency in these contexts is rare. (It is probable that Lanning was recalling Dannreuther.) Then in one of his most puzzling statements Lanning writes, "Although some authorities have stated that the shake may begin on the main note, if that note is part of the melody, this editor cannot find such a case in the music of Johann Sebastian Bach."[32] For example, in a fairly typical context from the Minuet in the Third French Suite, Bach writes the following passage in stepwise motion (Example 28a). The ascent of the melody is not reflected in Lanning's realization which obscures the move from "E" to "F-sharp" (Example 28b):

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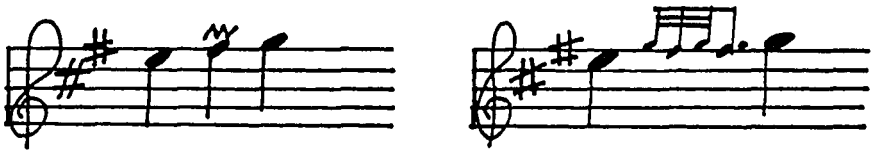
[31]Russell Lanning, Bach Ornamentation, (Ann Arbor, J.W. Edwards Publisher, 1952), p. 6.

[32]Ibid.

Example 28a: Bach, French Suite no. 3, BWV 814, m. 47
b: trill realization by Lanning

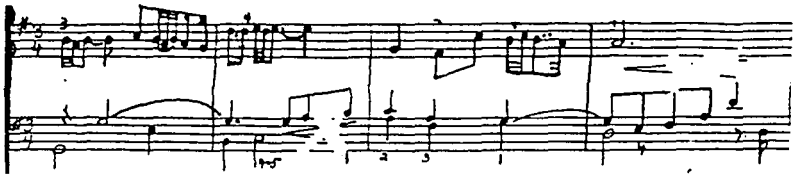
a b



Lanning also favors the appropriation of C.P.E. Bach's notational practices for the performance of the elder Bach's music. Lanning classifies various trills by Bach as different species of the *Pralltriller* or the *Schneller*, although it has been well documented that Bach was not systematic in his use of trill symbols.

Furthermore, Phillip Emmanuel reserved the use of the *Pralltriller* for a descending second, so Lanning's misconception of the trill in measure 1 of Example 29 as a *Pralltriller* is not accurate. At measure 3 Lanning advocates a *Schneller* even though this is not a staccato context (see page 28). Lanning is probably correct in writing that the *Schneller* had been in prior use, but he can be accused of a certain carelessness in dealing with this ornament.

Example 29: Bach, French Suite no. 5, BWV 816, Sarabande, mm. 1-4, with ornamentation realized by Lanning



Edward Dannreuther

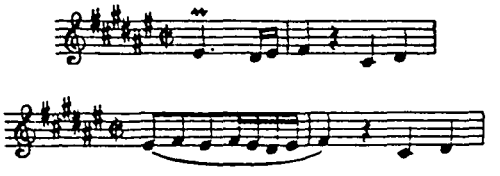
Edward Dannreuther's Musical Ornamentation (1893) is one of the first systematic studies on ornamentation. It has been severely criticized by many authors, particularly for the Bach chapter. The criticism ranges from outright rejection of all Dannreuther's "trill exceptions" (Landowska), to intense skepticism (Bodky and Emery), to partial acceptance (Neumann).

Dannreuther generally believed in the standard Bach trill rule and inferred that prolonged trills, more than short ones, generally start with the upper accessory (neighbor). One example occurs when the main note of the trill is preceded by the identical pitch  .

The following is a list of Dannreuther's contexts for playing a main-note trill:

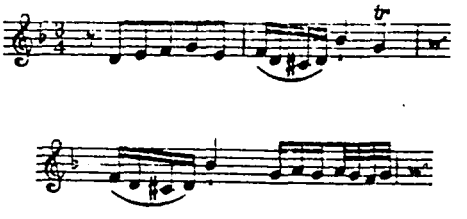
1) "when the shake begins *ex abrupto*" (Example 30):

Example 30: Bach, Fugue in F-sharp (WTC II), BWV 882, mm. 1-2



2) "when melodic outlines would be blurred," i.e., when the preceding note is one or more degrees higher then the subsequent trilled note:

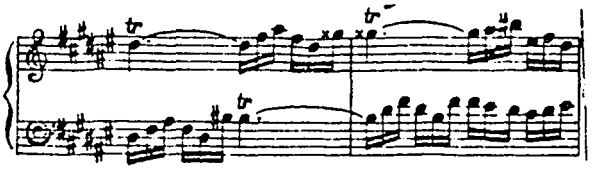
Example 31: Bach, Fugue in D minor (WTC I), BWV 851, mm. 1-2



Dannreuther then elaborates on several sub-categories of melodic "blurring." They are

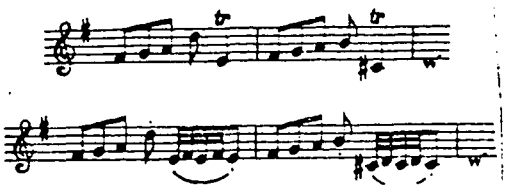
3) "when the repetition of a note is thematic":

Example 32: Bach, Prelude in F-sharp (WTC I), BWV 858, mm. 12-13



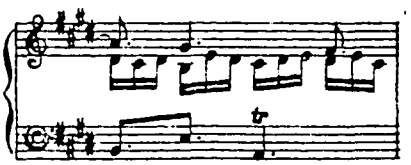
4) "when the melody skips, and the shake thus forms part of some characteristic interval, as for instance the interval of the seventh":

Example 33: Bach, Fugue in G (WTC I), BWV 860, mm. 25-26



5) "when the movement of the bass would be weakened if the shake were begun with the accessory":

Example 34: Bach, Fugue in C-sharp Minor (WTC II), BWV 873, m. 32



6) "when an appoggiatura from above would be out of place, then the shake had better not begin with the accessory" (Example 35).[33]

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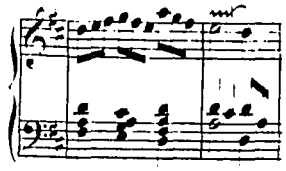
[33]Edward Dannreuther, Musical Ornamentation, (London: Novello, 1893), pp. 197-98.

Example 35: Bach, Partita no. 4, BWV 828, Menuet, mm. 3-4



Walter Emery

Walter Emery believes that in the vast majority of cases the performer should follow the standard eighteenth century convention of initiating trills with the auxiliary. However, in a certain number of cases one may consider a main-note start, especially in dealing with certain problems of voice leading caused by auxiliary beginnings.

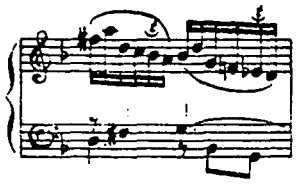
Emery observes that Bach's *Explication*, as well as every contemporary treatise and ornament table of the period, uses the auxiliary trill model. However, he notes that main-note trills were common in Italy and disseminated in German musical circles both before and after Bach's lifetime. Frescobaldi, a great exponent of main-note trills, was certainly not an unknown figure to Bach, who acquired a copy of Fiori Musicali in 1714.

Emery notes that Baroque composers were not always faithful to the realizations propounded in their ornament tables. Specific ornaments taken out of musical context can rarely be performed with such precise indications in music. For example, a literal realization of the following trill

from Gottlieb Muffat's Componimenti musicali (1736) is impossible considering the tempo of a gigue:

Example 36a: Muffat, Componimenti musicali, II, gigue, m. 12
b: trill realization by Muffat

a



b

Regarding C.P.E. Bach's rigidified affirmation of upper-note trills (see pages 22-23), Emery hypothesizes another interpretation: some composers did use small notes to show auxiliary trills but, in a broader sense, the notation of a trill preceded by a *Vorschlag* indicates that in 1753 a number of composers began their trills on the main note; otherwise there would be no need to differentiate with the small note.[34]

Emery notes how the application of the upper-note rule to an already dissonant appoggiatura results in a concord

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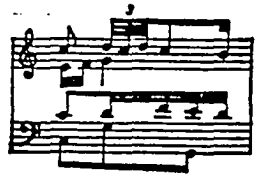
[34]Walter Emery, Bach's Ornaments, (London: Novello & Co. Ltd., 1953), pp. 40-41.

which weakens the melodic pungency of the appoggiatura.[35] The situation is exacerbated when the upper-note trill results in consecutive fifths and octaves as in Bach's Toccata in C:

Example 37: Bach, Toccata in C, BWV 564, Fugue, m. 71



Bach's sigh motive can be particularly incongruous when use of the upper-note rule produces parallels. For example, in the Invention in C Minor Emery hints at anticipation (but dismisses it as too unconventional) as well as the contrived solution of Aldrich. He finally settles on the *Schneller* to resolve this problematic issue. According to Emery, the *Schneller* is for all intents and purposes a main-note trill.

The disparity between appoggiatura trills for harmonic dissonance and main-note trills for contrapuntal purity is apparent in two other examples cited by Emery. The first occurs in Variation Twelve of Bach's Goldberg Variations. This piece, discussed on page 39, features a trill in measure 29 and a mordent in measure 30 which are evidently

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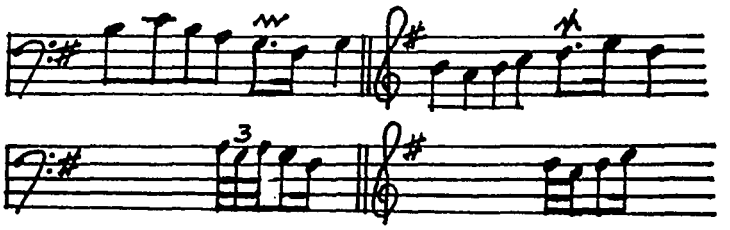
[35]Walter Emery, "The Upper-Note Shake in Bach," Musical Times 114 (1973): 891.

inversions of one another:

Example 38: Bach, Goldberg Variations, BWV 988, Variation 12, mm. 29-30, trill realizations by Emery



A conventional auxiliary trill would not preserve the inversion but a *Schneller* at measure 29 alleviates the problem. According to Emery, if the mordent had been preceded by an appoggiatura the passage could be notated and executed as in Example 39 to maintain the inversion of the upper-note trill. Furthermore, if one submits to the upper-note opinion, then one must conclude that either Bach (or an engraver) forgot to add the appoggiatura, or that the canon need not be exact.

Example 39: Mordent realization by Emery

Emery cites another example of a possible main-note trill in Bach. In a copy of the E Minor Invention, Bach's pupil Heinrich Gerber wrote out a realization of the ending

for the trill on "D" as well as the cadential trill on "C-sharp":[36]

Example 40: Bach, Invention in E Minor, BWV 778, mm. 7-9

As can be seen by Gerber's appended version, the first half of measure 9 suggests a main-note anchor, possibly even a main-note attack on the long trill, and an anchor on the "C-sharp" as well. This realization lends some credence to Emery's belief that Bach used both main and upper-note trills to sustain long notes.

The bulk of Emery's discussion on auxiliary/main-note trills appears as a rebuttal to Edward Dannreuther's list of six exceptions to appoggiatura trills. Here Emery's arguments reflect the general discontent that Dannreuther's arbitrary exceptions have provoked. The following is a capsule summary of Emery's objections:

1) *ex abrupto*: Emery quotes the opening fugue subject from the F-sharp Fugue, WTC II. Although the trill is on the first note of the subject and a main-note trill on the

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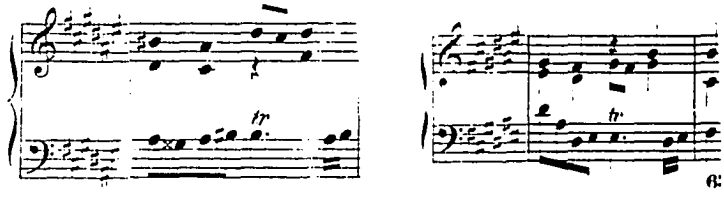
[36]Gerber's intentions notwithstanding, this trill is technically unplayable due to the impossible number of notes.

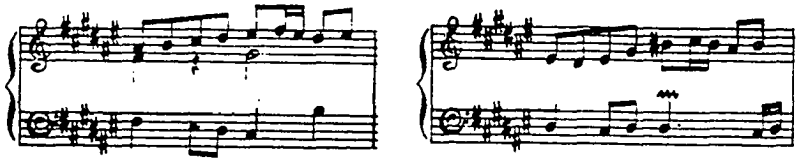
"E-sharp" would emphasize the melodic progression "E-sharp" to "F-sharp," subsequent entrances of the subject at measures 32 and 64 seem to call for a trill beginning on the auxiliary:[37]

Example 41: Bach, Fugue in F-sharp (WTC II), BWV 882, m. 32 & m. 64



According to Emery, Bach writes out in ordinary notation a three note "trill" in measures 20 and 70 which seems to indicate a main-note execution:[38]

Example 42: Bach, Fugue in F-sharp (WTC II), BWV 882, mm. 20 & 70



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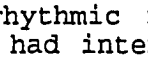
[37]It is puzzling why Emery would not simply restrike the note to be consistent.

[38]The author calls attention to Emery's mistaken assumption of the rhythmic figure  as a type of *Schneller*. If Bach had intended a *Schneller* he would have more likely notated  .

2) a trill after a staccato note or after a rest: Emery is puzzled by Dannreuther's exception here; he hypothesizes that Dannreuther considered "silence" as a variation of the *ex abrupto* type;

3) the repetition of a thematic note: in Dannreuther's quotation from the Prelude in F-sharp, the imitation is just as strict and just as intelligible if one begins with the auxiliary";[39]

4) preserving a characteristic interval: Emery notes that in many pieces Bach deliberately smoothes out a melodic angularity by inserting appoggiaturas or a trill with a prefix. There is no need for the performer to second guess Bach. Therefore trills in this context should begin with the auxiliary;

5) where melodic or harmonic outlines might be blurred: Emery notes that Dannreuther's subjective judgments are musically weak and have little to do with eighteenth century practice.[40]

Erwin Bodky

Erwin Bodky, while maintaining allegiance to the conventional rule of trill interpretation, cites a number of instances (twenty-four in his trill table) where main-note starts are preferable due to violations of voice leading.

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[39]Ibid., p. 47.

[40]Ibid., pp. 42-52.

Bodky, like Emery, takes exception to Dannreuther: "Dannreuther's rules were taken from the clear blue sky; they never have been found in any verbal formulation in contemporary sources, with the exception 'melodic outlines must not be blurred,' repeatedly used by C.P.E. Bach, from whom Dannreuther took it."[41] While arguing that Dannreuther's exceptions are not well founded, Bodky concedes that objections to upper-note beginnings may be justified since Bach was well acquainted with Italian ornaments. Nevertheless, each case should be evaluated on an individual basis with the overwhelming majority of trills conforming to the upper neighbor/on-beat variety.

Bodky concurs with three of Dannreuther's exceptions: 1) *ex abrupto*, Bodky quotes the subject from the F-sharp Fugue (Well Tempered Clavier II), as an example of a leading tone receiving prominent emphasis, 2) after a staccato note (no explanation given), and 3) "characteristic interval," Bodky observes that the melodic contour of the theme (Fugue in D Minor (Well Tempered Clavier I), would be obscured by an upper auxiliary.

For certain exceptional main-note trills that are to receive prominent emphasis, Bodky advises the performer to hold the first (main) note twice the value of the duration

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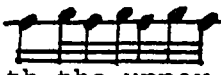
[41]Erwin Bodky, The Interpretation of Bach's Keyboard Works, (Cambridge: Massachussets University, 1950), p. 15.

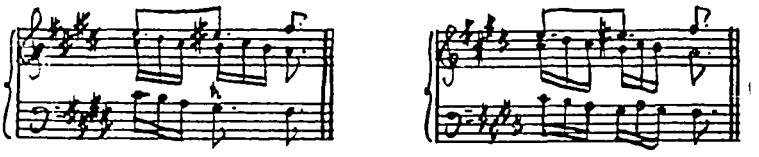
used in the oscillations (e.g., ) The repercussions can then start with the upper note.

Bodky believes that the controversy over the *Pralltriller* and the *Schneller* is really a minor point, and the omission of the *Pralltriller's* tie was borne out of expediency to the performer. Bodky quotes an example from J.S. Bach's student Johann Kirnberger as a type of short main-note trill in the manner of a *Schneller*. The passage by Bach and Kirnberger's appended copy with a written out *Schneller* appears below (Example 43a and b).

Bodky notes that the *Schneller* is a permissible tool when the speed of a piece makes the execution of the four note trill impractical.[42]

Example 43a: Bach, Fugue in C-sharp Minor (WTC II), BWV 873, m. 26
b: trill realization by Kirnberger

a b



Alfred Kreutz

Kreutz's views on the subject of ornamentation are contained in the introduction to his "Urtext" edition of

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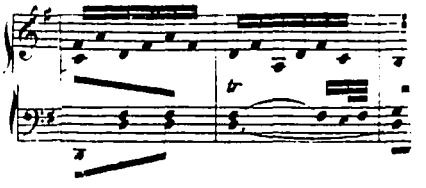
[42]Ibid., p. 166.

Bach's English Suites published by Peters. Although he clearly believes in the primacy of the upper-note trill he makes two exceptions: 1) when trills occur on pedal points, and 2) when trills are preceded by a characteristic melodic interval, usually seconds. (Willard Palmer erroneously takes these two exceptions to mean that Kreutz advocated main-note trills in two thirds of Bach's music.) As an example of the former category he cites the Fugue in G (Example 44).[43] Examples of the latter are contained in the fugue subjects from the E-flat, F-sharp, F-sharp Minor, and B Major fugues from the Well Tempered Clavier I.

Example 44: Bach, Fugue in G (WTC II), BWV 884, mm. 56-57



Kreutz also notes that the three note *Schneller* was in use during the time of Bach as evidenced by written out examples. Its efficacious use can no better be demonstrated then in measure 13 from the Invention in C Minor where a standard trill is not feasible.

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[43]This example is questionable since the trill is not on a pedal point.

Georg Dadelson

Dadelson, in an entry for Die Musik in Geschichte und Gegenwart, confines himself to a few brief remarks on trill beginnings in J.S. Bach's music. At first he simply states that the trill begins with the upper neighbor and that most attempts to begin on the principal note are unsubstantiated. However, according to Dadelson, Bach was not a pedant and there are various cases where one might legitimately perform main-note trills; under these circumstances there are no rules for their utilization. In an even more surprising statement, Dadelson states that any undue harshness created by starting the trill on the upper auxiliary can be minimized or downplayed: "In these cases it is irrelevant whether the trill begins on the main note or upper auxiliary."[44] Dadelson is the only writer except for Heinrich Schenker who takes such a cavalier attitude toward the trill rule.[45]

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[44]Georg Dadelson, Die Musik in Geschichte und Gegenwart, 13: col. 1545.

[45]Schenker notes that a trill contains many successive suspensions following in rapid order within a total melodic and harmonic framework. This general framework nullifies any sharp distinction between a main-note or upper-note trill. Heinrich Schenker, "A Contribution to the Study of Ornamentation," The Music Forum, 4 (1976): 1.

Proponents of Main-Note Trills

Adolf Beyschlag

Beyschlag is unique among relatively early Bach writers in that he seems to have entirely adopted the main-note rule. He writes that "Bach does not follow the French doctrines and we do not see any need to deviate from starting on the main note."[46] These few perfunctory words are followed by nearly forty musical examples, most appended with Beyschlag's realizations. With the exception of one or two examples every passage shows a main-note beginning, albeit on the beat. Beyschlag advocates using main-note trills after an identical note or in standard cadential contexts (Example 45a and b):

In the Gigue from the Fifth Partita, Beyschlag recommends either a main-note or auxiliary execution for the bass trill which suggests that Beyschlag probably thought that the choice was irrelevant (Example 46):[47]

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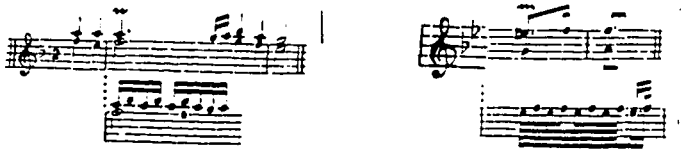
[46]Adolf Beyschlag, Die Ornamentik der Musik, (Leipzig: Breitkoptf & Härtel, 1908), p. 129.

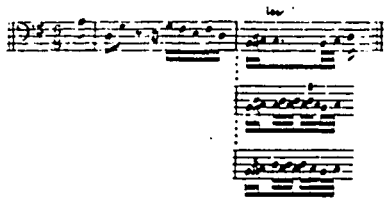
[47]In addition, Beyschlag ignores the prepared trill symbol which specifically calls for a prepared upper-note trill.

Example 45a: Bach, English Suite no 6, BWV 811, Gavotte I, mm. 1-2
b: Bach, Partita no. 1, BWV 825 Praeludium, m. 13

a b

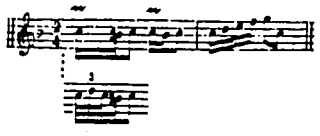


Example 46: Bach, Partita no. 5, BWV 829, Gigue, mm. 33-34



Beyschlag also uses the *Schneller* in many of his musical examples (Example 47). He apparently considered Bach's omission of this ornament in the Clavierbüchlein an oversight.

Example 47: Bach, Italian Concerto, BWV 971, I, mm. 147-148



Ferruccio Busoni

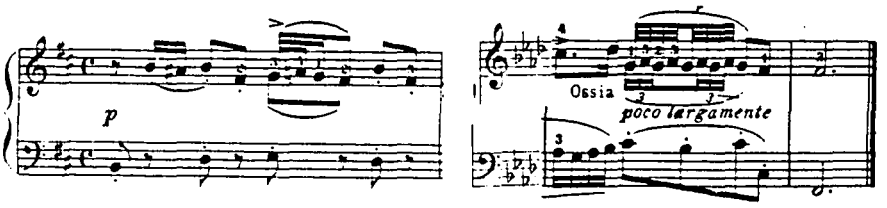
Busoni's edition of the major keyboard works of Bach spans seven volumes and was finally completed in 1918 by the

publishing house of Breitkopf and Härtel. Two works from this edition were consulted: the Inventions and the Well Tempered Clavier. In the Inventions (First edition, 1891, Revised, 1914) there is little discussion in the rather ample critical notes on ornamentation. All of the ornaments are written out, making it imperative to compare Busoni's realizations with an Urtext or reliable scholarly source. The interesting feature about Busoni's trill realizations is that *all* of the simple trills begin on the main note. He also notates main-note trills as well as the *Schneller* for cadential contexts (Example 48a and b).

In the Invention in B Minor every trill is a *Schneller,* even the cadential trill at the end. The same lack of criteria for trills can be observed in Busoni's annotated edition of the Well Tempered Clavier I. In several places the trill and *Schneller* seem to be interchangeable, and rarer instances of upper-note trills, when written out, are given no apparent justification. One can speculate that Busoni approached trills in the same manner as the post-Hummel school (consistent use of the main-note trill) or never gave the matter much thought.

Example 48a: Bach, Invention in B Minor, BWV 786, m. 1
b: Bach, Invention in F Minor, BWV 780, mm. 33-34

a b



Frederick Neumann

Frederick Neumann is certainly not the first musicologist to object to the rigid application of auxiliary trills. Neumann differs from other proponents of main-note trills in his large number of examples and his logical reasoning based on musical considerations. By gathering internal evidence based on harmonic, contrapuntal, and melodic logic, Neumann provides cogent arguments for his sometimes controversial theories.

At the beginning of his chapter on Bach's trills, Neumann states that Bach rarely wrote out extended trills in regular notation.[48] He illustrates some of the exceptional examples in Bach's music as well as shorter trill patterns which are manifestations of the *Schneller*.

Neumann observes that Bach would sometimes indicate an accelerating trill beginning on the main note with the limited notational means at his disposal, as in Example 49:

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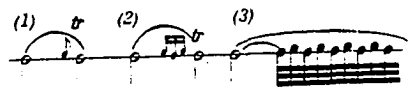
[48]Neumann, Ornamentation, p. 313.

Example 49: Toccata in D Minor, BWV 538, mm. 177-84

The need for a main-note start and anchor can be inferred by these various exceptions. Neumann suggests a main-note execution for long extended trills or pedal points since the object is to emphasize the principal note and not the neighbor. Moreover, in places such as  where Bach has notated clear examples of main-note trills, it is advisable to begin trills unobtrusively so as to avoid breaking the intended continuity. This can be achieved in one of three ways: 1) take the auxiliary alone (in the form of a grace note) before beginning the repercussions, 2) execute the first complete alternation before the beat, or 3) start shortly after the beat (Example 50).[49] (The possibilities of trill anticipation will be discussed in a later chapter.)

Example 50: Main-note trills

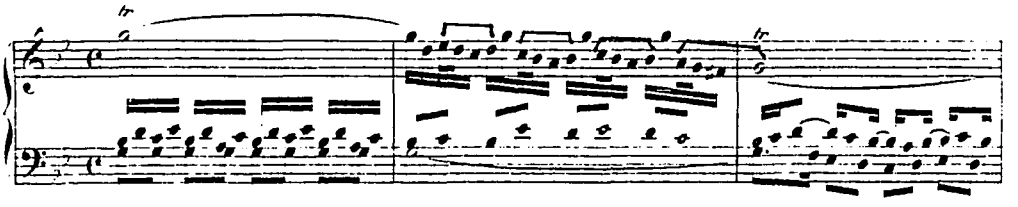


[49]Ibid., p. 320.

Neumann's main-note trills fall under several classifications: 1) those that maintain integrity of polyphony or inner melodic motion, 2) those that clarify dissonance, 3) those that clarify articulation or contour, 4) those that clarify rhythmic structure or an ongoing rhythmic pattern, and 5) those that simplify technical complexity. For these situations Neumann maintains that the use of main-note trills is a more "felicitous" choice than orthodox appoggiatura trills in many contexts.[50]

As an example of the first category (Example 51) Neumann points out that the downward melodic motion of the four note motive (what he calls a species of prebeat turn) would be violated in the third measure by an auxiliary trill. However, a trill starting on "G" would preserve the integrity of the descending motivic figure:

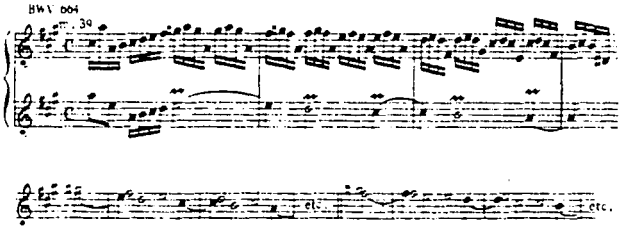
Example 51: Prelude in G Minor (WTC I), BWV 861, mm. 1-3



[50]Ibid., pp. 319-27.

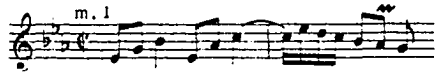
In the Trio super Allein Gott in der Höh, a series of main-note trills clarifies a sequence of harmony-enriching suspensions and resolutions among the upper parts which would be close to unintelligible using appoggiatura trills:

Example 52: Bach, Trio super Allein Gott in der Höh, BWV 664, mm. 39-41, and harmonic reduction by Neumann



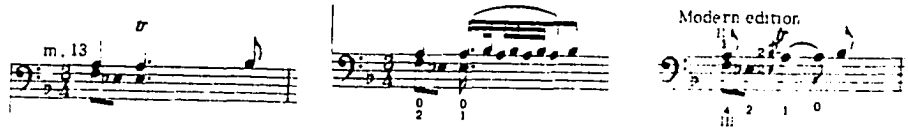
In a multitude of situations Bach calls for a trilled note after an upper neighboring tone. While a slur clarifies the legato articulation making a main-note trill necessary, there are many places where Bach omits any articulation markings, apparently leaving these details to the taste of the performer. In these cases, Neumann notes that where legato interpretation seems intended, either by contour or design, then a main-note start seems advisable. In the following example, Neumann infers that the energetic concerto style and angular melodic contour would seem to favor a detached articulation. Neumann advises any trill design here (Example 53):

Example 53: Bach, Trio Sonata no. 1, BWV 525, I, mm. 1-2



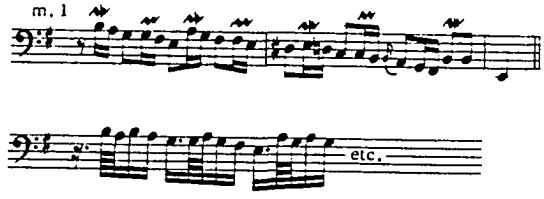
In the next example, an excerpt from the Suite in D Minor for Cello, Neumann derides an "overzealous" editor for beginning trills in the standard manner. A conventional realization of this trill requires an awkward position of the hand and fingers which a main-note interpretation would alleviate:

Example 54: Bach, Suite in D Minor for Cello, BWV 1008, m. 13



In his chapter, "The German Trill: 1715-1780," Neumann mentions that Marpurg occasionally shed the tied note in his *Pralltriller*. Therefore the *Pralltriller* is reduced to a three note *Schneller*. Neumann states that the *Schneller* is appropriate in certain contexts and can clarify rhythmic design as well. His one example from the Organ Chorale Christ lag in Todesbanden seems to suggest the old dualism of the trill and the mordent as inversions of each other (Example 55).

Example 55: Bach, Christ lag in Todesbanden, BWV 718, mm. 1-2



Here Neumann favors the *Schneller* since there is no time for multiple alternations. Furthermore, an on-beat execution would obscure rhythm and meter, so that this context is an "auspicious occasion" for a prebeat (or anticipatory) design, since notes of shorter duration tend to sound unstressed.

CHAPTER IV

NEUMANN'S ANTICIPATORY TRILLS

The choice of beginning the trill alternations before the beat (anticipation) is as controversial as executing main-note trills. Frederick Neumann has made a substantial case for the implementation of anticipated trills based on internal evidence in Bach's music. Researchers are ambivalent on whether these pre-beat graces are either implied or necessary in Bach's music. David Fuller, in a critique of Neumann's book, notes that Neumann's promotion of a pre-beat or "grace note" trill is not viable, and other alternatives are advisable (these are not enumerated).[1] Graham Pont (despite severe reservations about Neumann's main points) supports Neumann's advocacy of anticipated ornaments: "Neumann proves again and again that Baroque scores cannot be adequately interpreted by these crude generalizations because there were numerous ornaments that were notated and/or meant to be performed *between* the principal notes of a melody fulfilling a subordinate decorative role without any special harmonic or rhythmic

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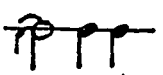
[1]David Fuller, review of Ornamentation in Baroque and Post Baroque Music, by Frederick Neumann, In JAMS 33 (1980): 401.

emphasis.[2]

Donington points out that ordinary notes of anticipation (such as those that terminate many trills) do not necessarily connect to the ensuing final note but rather function as an appendage or final fragment of the previous beat. While acknowledging that between-beat ornaments can be graceful and pleasing, Donington notes that they can also sound weak and "emasculated," particularly in harmonically grounded contexts such as the cadential trill. Donington observes that the momentary impression created by an anticipated trill seems to suggest a certain quality of ineptness or inexactitude, "It is over in a flash; but what Frederick Neumann enjoys here as an agreeable refinement, I disenjoy as a small blemish."[3]

Michael Collins, in his discussion on trills in French clavecin music, dismisses Neumann's anticipatory ornaments as having no justifiable basis. He notes that it was standard practice for French composers to engrave small notes, presumably dissonant, as a substitute for consonant ones that appeared on the beat  . This was to avoid obscuring the basic harmonic progression. The constraints of notation were bypassed in favor of the pungency of the

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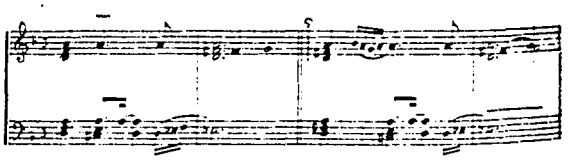
[2]Graham Pont, review of Ornamentation in Baroque and Post- Baroque Music, by Frederick Neumann, In Studies in Music 14 (1980): 130.

[3]Donington, The Interpretation, p. 622.

on-beat appoggiatura.[4]

Neumann cites the *petite reprise* in "La Majesteuse" by Couperin as a "striking" context for an anticipatory *double cadence* (i.e., a prefixed trill). In measures 28-29, a slight variant of measures 17-18, the third small bass note is missing:

Example 56: Couperin, "La Majesteuse," (Ordre I), mm. 17-18 & mm. 28-29



Neumann infers that this note is the anticipated auxiliary of the *tremblement continu*.[5] However, Collins maintains

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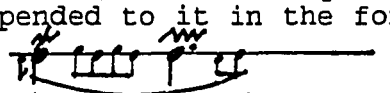
[4]Collins notes that Couperin routinely expressed anticipatory notes in large type. However, according to Collins, another way he indicated anticipatory graces was to notate a long slur over small notes. For example, Collins maintains that the following turn figure (Couperin, Air II, {Ordre XXII}, m. 17) occurs in the previous beat before the trill (*double cadence*); it is a disparate part of the trill and cannot be appended to it in the form of an anticipated prefixed trill:



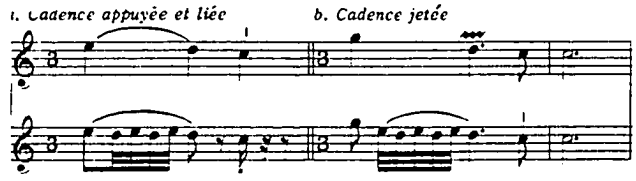
(Collins, "In Defense," p. 436.)

[5]According to Neumann, Couperin availed himself of several trill designs; anticipation of the first note was but one option. Neumann extrapolates that all three notes prefacing the *tremblement continu* should be played as anticipations (see page 15-16).

that this ornament is simply a slide trill (*tremblement coulé*) which is always executed on the beat.[6]

Neumann states that anticipatory trill designs are found even later in France: in 1778 Engramelle (L'Art du facteur d'orgues) gives the following trill pattern which strongly suggests Couperin's spatial alignment from L'Art de toucher le Clavecin:

Example 57: Engramelle, L'Art du facteur d'orgues, partie 4, Plates 106-107



The Grace Note Trill

The simplest form of the anticipatory trill advocated by Neumann is the grace note trill. It is executed by playing the first note of the trill, usually the upper note, slightly ahead of the beat in the manner of a grace note. The "discovery" of this design cannot be fully attributed to Neumann: Dannreuther and Beyschlag had already furnished several non-identified examples in their respective

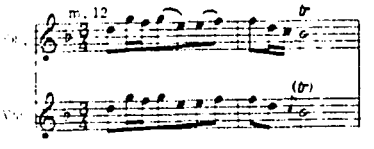
[6]Collins, "In Defense," p. 436.

studies.[7] Neumann himself notes that Dannreuther found interesting evidence for grace note trills in the Organ Chorale Nun komm, der Heiden Heiland. There are two nearly identical passages; the first at measure 5 seems indicative of Bach's intentions for the similar passage at measure 29:

Example 58: Bach, Nun komm, der Heiden Heiland, BWV 659, m. 5 & m. 292

Similarly Beyschlag found a passage (a trill preceded by a *Vorschlag*) from the Christmas Oratorio that apparently calls for the grace note design:

Example 59: Bach, Christmas Oratorio, BWV 248, no. 42, m. 12



The following example, cited by Neumann, is taken from the Cantata number 140. Here a written-out anticipatory note

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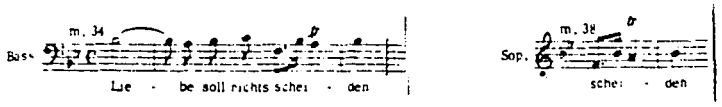
[7]Neumann cites several of Dannreuther's grace note trill realizations. They appear in Examples 62 and 63.

before the beat is intended:

Example 60: Bach, Cantata "Wachet auf," BWV 140, Duetto, m. 34 & m. 38



Neumann's criteria for grace note usage are sometimes nebulous. He admits that his examples were chosen in rather random fashion and that they only hint at a much wider range of application. The main contexts favoring grace note usage that are persuasive to the author are 1) parallels, 2) tone repetition, 3) preservation of dissonance, 4) certain trills preceded on the upbeat by their tied main note, 5) a series of trills in quick succession and, to a lesser extent, 6) grace notes that act as a substitute for the trill for technical reasons.[8]

A grace note trill to avoid parallels between the upper voices is cited in Variation Sixteen from the Goldberg Variations (Example 61).

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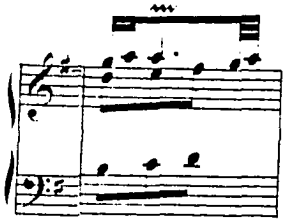
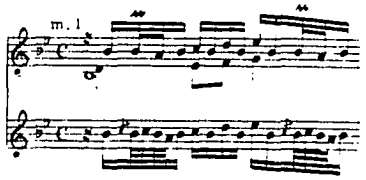
[8]Neumann, Ornamentation, pp. 327-30.

Example 61: Bach, Goldberg Variations, BWV 988, Variation 16, m. 28



Neumann does not precisely justify his criteria for grace note usage on a repeated tone (presumably preservation of melodic contour, dissonance and rhythm were considerations). The First Partita is used as an example:

Example 62: Partita no. 1, BWV 825, Praeludium, m. 1, trill realization by Dannreuther



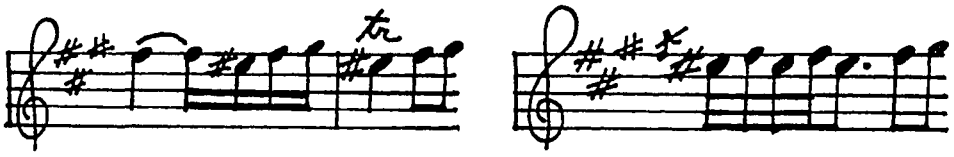
Neumann adds that Beyschlag's solution, a *Schneller*, would work equally well, thus furnishing a certain amount of interchangeability between the two designs.

An example of tone repetition in a different context is demonstrated in the Second Violin and Harpsichord Sonata, where an upper auxiliary trill on the "E-sharp" provides, in Neumann's words, "improvident and melodically untoward"

melodic stress on the "F-sharp" that precedes and immediately follows again:

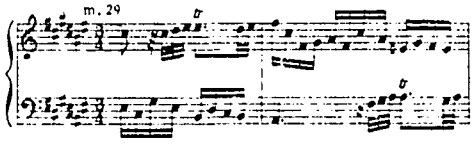
Example 63a: Bach, Violin Sonata no. 2, BWV 1015, III, m. 2
b: trill realization by Dannreuther

a b



The third factor favoring grace note usage, preservation of dissonance, can be seen in the following example where the articulation of an initial "E-sharp" maintains the dissonance against the bass:[9]

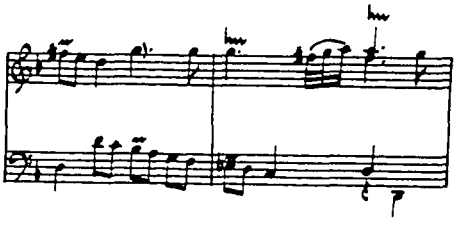
Example 64: Bach, Prelude in F-sharp (WTC II), BWV 882, mm. 29-30



[9]Another option is to simply start the trill with the main note.

Beverly Scheibert recommends one context for the grace note trill that is not mentioned by Neumann: simultaneous trills. In the following D'Anglebert transcription, the prepared trill (*appuyé*) can begin before the beat on the auxiliary and coincide with an on-beat/main-note trill in the bass:[10]

Example 65: Lully/D'Anglebert, Ouverture de la Mascarade, mm. 49-50



Neumann uses the opening from the Third Organ Trio Sonata as an instance of a trill preceded by a tie (Example 66). Here he maintains that an appoggiatura would not be appropriate in light of the duration of the tie. (Also parallel octaves with the bass would result.) Therefore a grace note or anticipated trill would be preferable.

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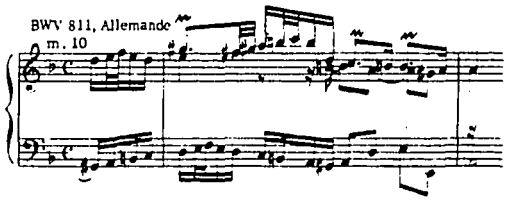
[10]Beverly Scheibert, Jean-Henry D'Anglebert and the Seventeenth Century Clavecin School, (Bloomington: Indiana University Press, 1986), p. 75.

Example 66: Bach, Trio Sonata no. 3, BWV 527, I, m. 1, trill realizations by Neumann

(Dannreuther also uses the identical example, his single illustration of a fully anticipatory trill.)

The fifth category, a series of trills in succession, poses a problem of monotony. In one example from the Sixth English Suite, Neumann insists that each trill has an individuality of its own. The first trill favors a main-note or grace note approach to preserve the ascending dissonant melodic leap; the last suggests an appoggiatura trill in accordance with its more cadential nature, and the middle one would seem to call for a more neutral "physiognomy" (apparently a main-note trill) to set it off from the final trill:

Example 67: Bach, English Suite no. 6, BWV 811, Allemande, m. 11

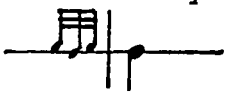


Neumann's arguments here seem rather speculative but certainly not without sound musical considerations.

The final category, the insertion of a grace note as a trill substitute is hardly mentioned.[11] Neumann only cites the example given by Dannreuther (see Example 58) and no further contexts are provided.

In a brief concession to his critics, Neumann does state that the grace note (and main-note) trill is more neutral compared to the more pungent on-beat appoggiatura trill. But it is precisely this unobtrusiveness that Neumann advocates in his desire for multiplicity of trill designs.

Partially and Fully Anticipated Trills

Neumann's partially and fully anticipated trills represent intermediate and full degrees of anticipation respectively. In the partially anticipated type, one repercussion precedes the beat with the remainder of alternations coming after the beat  . Neumann sometimes calls this a "straddling" trill. The alternations of the fully anticipated trill all occur before the beat  .

As an example of some of these anticipations Neumann cites the Invention in C Minor. He proposes the following

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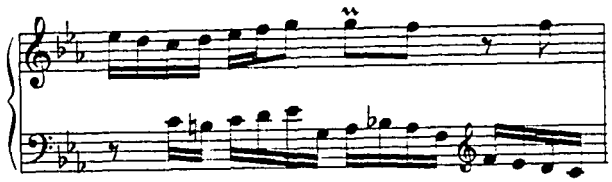
[11]C.P.E. Bach advises that a single appoggiatura may be substituted in lieu of the trill in fast passages or where trills are not technically feasible. (Bach, Essay, p. 105.)

options: 1) a main-note trill, 2) a grace note trill, or 3) a fully anticipated trill:

Example 68a: Bach, Invention in C Minor, BWV 773, m. 3
b: trill realizations by Neumann

a



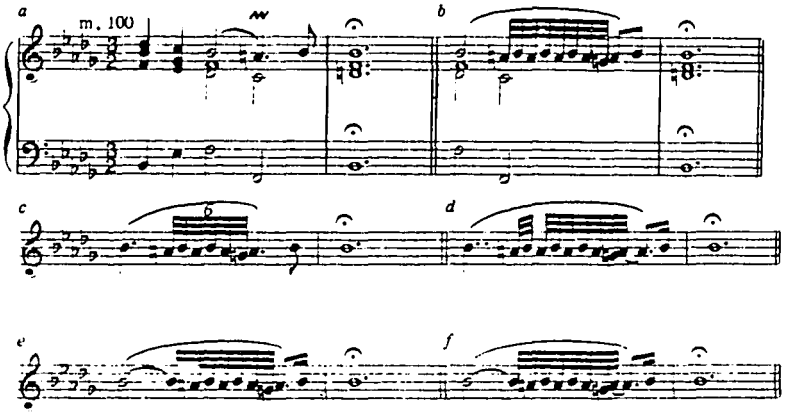
b

In his subsequent discussion of anticipated trills, Neumann states that wherever alternations on the beat sound stiff and awkward anticipation can be considered.

Neumann argues quite convincingly for a complete gamut of anticipatory trills for the *tremblement lié*. Like Aldrich, Neumann notes that the dividing line between appoggiatura and trill was imprecise at best. According to Neumann, the *raison d'etre* of the *lié* design is to achieve a synthesis between appoggiatura and trill. Therefore the repercussions should start as unobtrusively as possible. He then lists the various options: 1) on-beat start, 2) complete anticipation, 3) partial anticipation, 4) delay

with main-note anchor, and 5) delay with upper-note anchor.[12] The approach suggested at letter "f" would seem to satisfy the proponents of the upper-note rule. Neumann, pointing to the strong cadential nature of letter "e", mentions its "harmony-enriching" suspension effect and main-note anchor:

Example 69: Bach, Fugue in B-flat Minor (WTC II), BWV 891, m. 100, trill realizations by Neumann



However, such fine shades of rhythmic nuance may not be apparent to the more casual listener.

In the Fourth Organ Trio Sonata, Aldrich had recommended a traditional treatment of the *tremblement lié*: slurring the "E" to the first part of beat two (see pages 33-34). By contrast Neumann, in the identical example, cites other factors such as the strong rhythmic "bite" of the movement where every single beat is clearly marked. The

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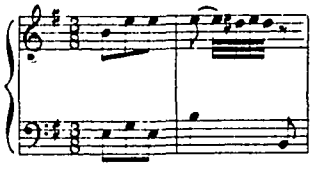
[12]Ibid., pp. 332-33.

absence of a strong beat is anathema to the rhythmic propulsion of the movement, and therefore a fully anticipated trill clarifies the beat and offers a more convincing performance:

Example 70a: Bach, Trio Sonata no. 4, BWV 528, III, mm. 1-2
b: trill realization by Neumann

a



b

CHAPTER V

MAIN-NOTE TRILLS: SUGGESTED EXECUTIONS

In light of the previous discussion, the author chose to find additional musical examples to support the premise of main-note trills in Bach's music.

Although a performer in the twentieth century may be less aware or sensitive to parallel fifths or octaves than a Baroque musician, the fact remains that the trill is not exempt from certain rules of voice leading that were rarely violated in the earlier period. While Bach was careful in his proofing of ornaments for undesirable consecutives, there nonetheless were errors that escaped his scrutiny.[1] Erwin Bodky has cited a number of examples of consecutive fifths and octaves which occur in Bach's keyboard music if the upper-note formula is applied without reservations.[2]

One example detailing Bach's concern with the grammatical correctness of his ornaments occurs in the following example. In the Praeambulum (an earlier name for Invention) taken from Bach's Clavierbüchlein, Bach rhythmically adjusts the notes of a turn to avoid parallel

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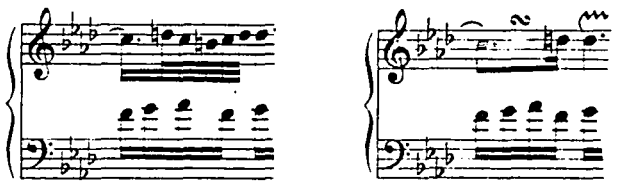
[1]Erwin Bodky, The Interpretation, p. 326.

[2]Ibid., pp. 428-31.

fifths; subsequent published versions of the nearly identical Invention contain no such realization:

Example 71a: Bach, Praeambulum in F Minor, BWV 780, m. 16
b: Bach, Invention in F Minor, BWV 780, m. 16

a b



While this example does not use a trill, it shows that Bach did not disregard conventions of voice leading.

The author made four assessments of Bach's trills arising out of Neumann's previous research, as well as original deductions which are predicated on musical and contrapuntal logic: 1) that parallel fifths and octaves (either blatant or implied) are created in a substantial number of contexts as a result of initiating the trill on the upper note, 2) that in a number of musical contexts, particularly those involving suspensions, the first note of a trill may have a decided impact on the harmonic shape of a passage, 3) Bach's notated legato slurs, though infrequent, may help determine a trill's starting pitch, 4) that "melodic outlines" (see pages 53-55) are disguised or masked by certain upper-note trills, and 5) that upper-note trills falling on certain melodic appoggiaturas are divested of

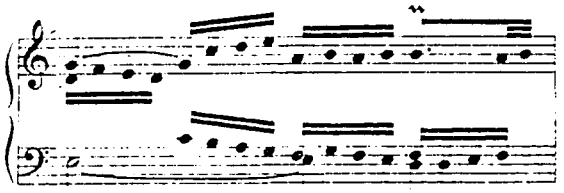
their harmonic significance.

The following categories contain recommendations for main-note trills selected by the author from Bach's keyboard music. In a few instances they have also been cited by other writers.

Consecutives Arising from Upper-Note Trills

One example of parallels occurs in the Sinfonia in C; here the offending voices are the tenor and the soprano:

Example 72: Bach, Sinfonia in C, BWV 787, m. 6



An upper-note start here, while more common in Bach's stereotypical  pattern, creates parallel fifths. Besides avoiding parallels, a main-note trill starting on "B" does not anticipate the melodic climax of "C" on the ensuing downbeat, but does highlight the interval of the tritone with the tenor.

In the Prelude in F Minor a sigh motive recurs throughout.[3] Altnikol's copy of this piece contains added

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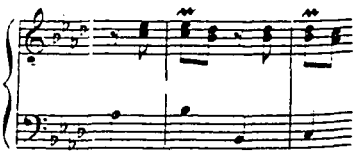
[3]This particular passage has been cited by Neumann. (Neumann, Ornamentation, p. 316.)

trills which would create parallel fifths at measure 13:[4]

Example 73: Bach, Prelude in F Minor (WTC II), BWV 881, m. 13



The parallels here are quite exposed and occur in outer voices; a main-note execution would alleviate this problem.

In the Präludium et Partita del Tuono Terzo (c. 1710), is found the most blatant form of parallel fifths and octaves (Example 74). This may have been a place where Bach was negligent in his proofreading; possibly he was less meticulous at this stage in his compositional career. Besides avoiding a hollow fifth sonority, a main-note trill on beat three preserves the "C" which is a struck suspension leading to a half cadence in measure 9.

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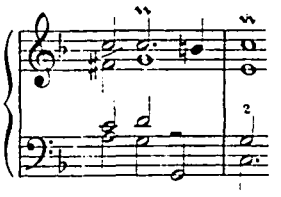
[4]Johann Altnikol (1720-59) was Bach's student and son-in-law. His manuscript copy of the WTC II dates from 1744.

Example 74: Bach, Präludium et Partita del Tuone Terzo, BWV 833, Präludium, m. 8



The Trill and the Suspension

The trill, in the role of a suspension, can play an important role in melodic contexts. In several instances the initial trilled note, especially when preceded by the identical note and a different underlying harmony, can alter the quality of the harmony itself rather than confining itself to the role of a non-harmonic tone. For example, in the Sarabande from the Sixth Partita, the trill appears above an elusive harmonic structure (Example 75).[5]

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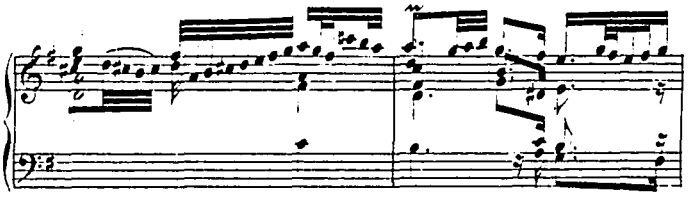
[5]One could interpret this harmonic complex one of two ways: 1) as a B Minor "chord" with "A" and "C" being non-harmonic tones (From a purely physical standpoint, this conception might seem apparent since the left hand spans the three bottom notes so that the right hand can fill in with the remaining three.), or 2) as a chordal appoggiatura in the form of "D-seven" (a struck suspension) over "B" (first inversion "G" chord).

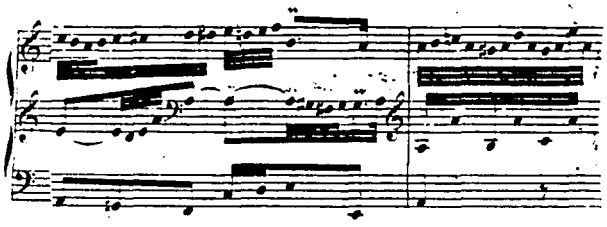
Example 75: Bach, Partita no. 6, BWV 830, Sarabande, mm. 7-8



If one presumes this harmony as a Minor V in the key of E Minor then the following weak progression of "chords" (G Major or III on beat 2 and E Minor or i on beat three) is magnified. By contrast this is a propitious occasion for a main-note trill. The "A" is the climax of the phrase (introduced by cadenza-like figuration at measure 5). The striking of the initial "A" defines the chord as a struck suspension with the "F-sharp," "C," and "A" in the treble being held over from the previous F-sharp diminished chord in measure 7. The addition of a "D" on the downbeat fills out the chord and gives it an added pungency.

In the next example from the Largo movement of the Trio Sonata no. 5, the suspended "A" is dissonant with the dominant harmony on beat five (Example 76). This musical context would favor a main-note trill on the soprano "B" since the harmonic clash with the suspended "A" is highlighted.

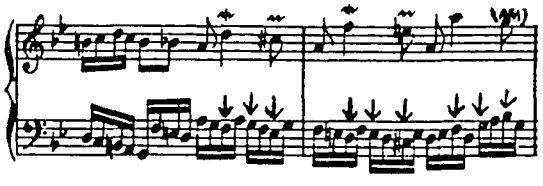
Example 76: Bach, Trio Sonata no. 5, BWV 529, II, m. 12



Bach sometimes writes sequential passages that are in essence a series of short struck suspensions between parts (see page 72). The following passage and harmonic outline from the Invention in G Minor illustrate a series of suspensions between the treble and bass clarified by main-note trills. Upper-note trills would mar the resolution of each suspension:

Example 77a: Bach, Invention in G Minor, BWV 782, m 8-9
b: with harmonic outline

a



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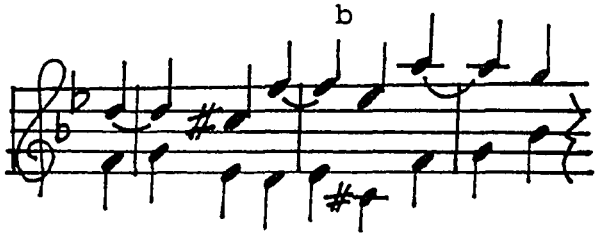
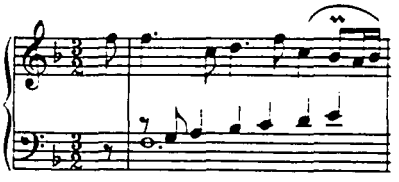


The Slur and the Trill

Bach occasionally used slurs in his keyboard music to denote legato. One example of a legato context is in the Courante from the Fourth English Suite where Bach includes a short slur over a compressed rhythmic motif:

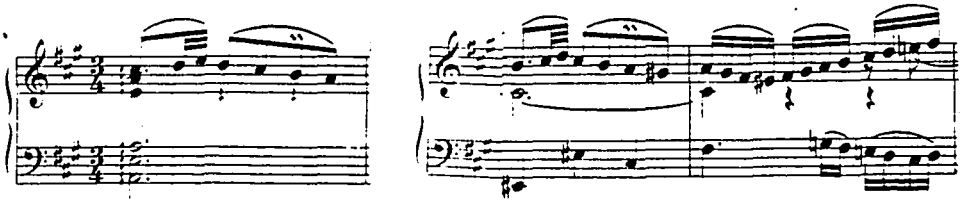
Example 78: Bach, English Suite no. 4, BWV 809, Courante, m. 1



To perform the trill on the auxiliary would interfere with Bach's legato indication.

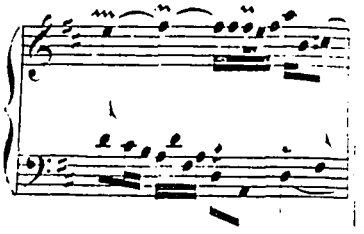
Slurs which include trills abound in the Sarabande from the First English Suite. The trills would preferably be executed on the main note to enhance the legato:

Example 79: Bach, English Suite no. 1, BWV 806, Sarabande, m. 1 & mm. 17-18



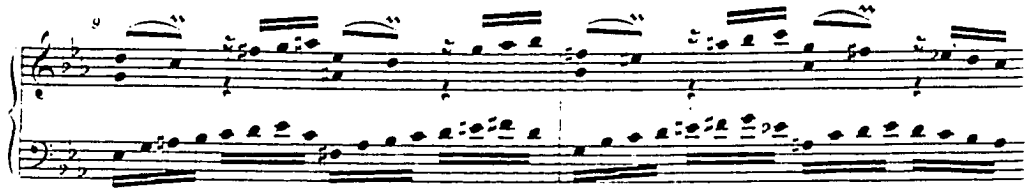
An interesting example of a trilled note slurred to a mordent occurs in the Allemande from the Fourth Partita. Bach's two note slurring of "E" to "F-sharp" is obscured when the trill is initiated and continued with its emphasis on the upper note. The contrast between the trill and the mordent is clarified by a main-note trill. In addition the harmonic situation is enhanced by a main-note trill: the piquant clash of the "E" against the "D" is resolved on the second beat to a D Major harmony.

Example 80: Bach, Partita no. 4, BWV 828, Allemande, m. 28



In the Allemande from the Second Partita, the falling second motive is an example of the *tremblement lié* which should be executed on the main note and on the beat (Example 81). A conventional *tremblement lié* interpretation (after the beat) would be rhythmically indecisive and technically difficult (Example 81).

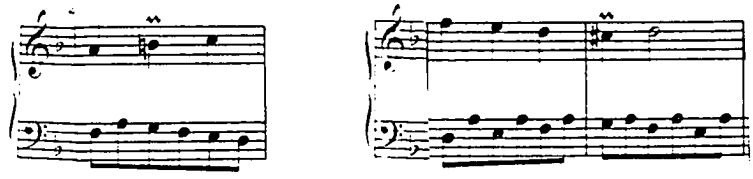
Example 81: Bach, Partita no. 2, BWV 826, Allemande, mm. 9-10



The Trill and Melodic Outlines

There are a number of places in Bach's keyboard music where an upper-note trill interferes with the melodic contour. This is particularly true when preceding or following notes are the same pitch as the upper note of the trill:

Example 82: Bach, English Suite no. 4, BWV 809, Menuet II, m. 21 & mm. 25-26

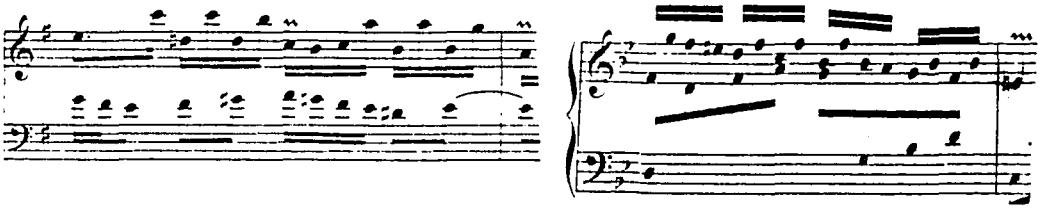


In a number of Bach's keyboard pieces an inner melodic line is implied in a seemingly single contrapuntal voice. When a trilled note is part of this implied melodic line it is not advisable to obscure its melodic contour or intervallic relationship to previous pitches by executing upper-note trills (Example 83).

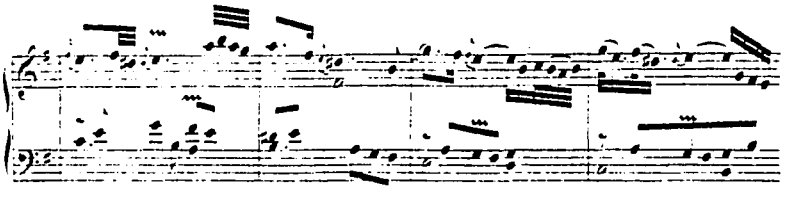
In Example 84, the bass has an descending three note motive that is a rhythmic variant of the opening measure of the melody. Since the trilled notes of the bass occur during right hand trills or appoggiaturas and move in eighth notes they do not have a dissonant function; rather they operate as passing tones which are further clarified by main-note trills.

Example 83a: Bach, English Suite no. 5, BWV 810, Allemande, m. 3
b: Bach, Partita no. 1, BWV 825, Allemande, m. 11

a b



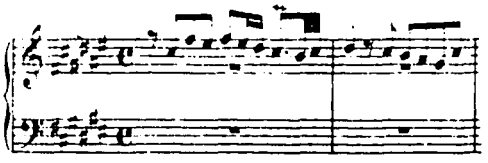
Example 84: Bach, Goldberg Variations, BWV 988, Aria, mm. 19-22



In fugue subjects, the principle of always starting the trill with the auxiliary could militate against the intended

melodic contour of a subject in its initial appearance.[6] For example, the beginning of the Fugue in F-sharp is compressed within the intervallic range of a perfect fifth:

Example 85: Bach, Fugue in F-sharp (WTC I), BWV 858, mm. 1-2



The trill in the initial half of the phrase suggests a main-note approach because of its stepwise (and probably legato) melodic contour as well as the agogic accent on "C-sharp."[7] An upper-note trill here would also spoil the climax by anticipating the downbeat "D-sharp." Further support for using main-note trills throughout the fugue occurs at measure 12, where the soprano and the tied alto converge on

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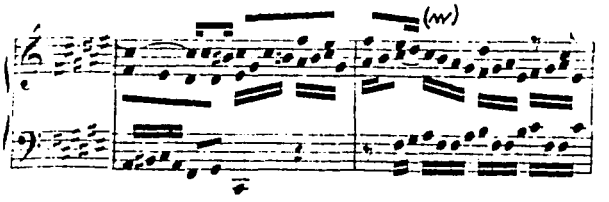
[6]Neumann has called Bach's fugue themes "paragons of linearity." At the beginning of a subject one must not infer a harmonic underpinning which does not even exist. According to Neumann, subsequent counterpoint is consequently disturbed by this tendency to verticalize a basically "horizontal impulse." (Neumann, Ornamentation, p. 323.)

[7]Neumann states, for example, that there are frequently musical passages that infer main-note treatment to preserve legato contour whether overtly indicated or not. (Neumann, Ornamentation, pp. 324-25.)

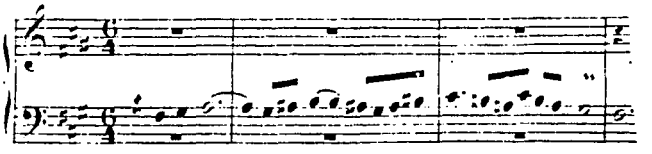
the trilled "C-sharp":[8]

Example 86: Bach, Fugue in F-sharp (WTC I), BWV 858, mm. 11-12



In the Fugue in F-sharp Minor the melody ascends and descends by step:

Example 87: Bach, Fugue in F-sharp Minor, (WTC I), BWV 859, mm. 1-3



A main-note trill here undeniably makes for a smoother legato line.

In the Sarabande from the Sixth Partita, Bach's three voice texture has the soprano voice descending chromatically: "G"-"F-sharp"-"F natural"-"E" (Example 88). A conventional trill would obscure this melodic line and the resolution of the tied "G" (in effect a *tremblement lié*).

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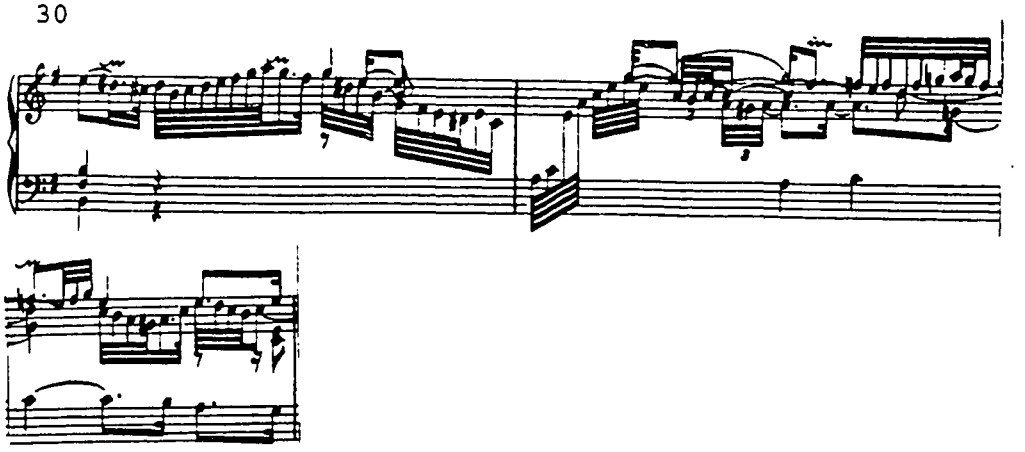
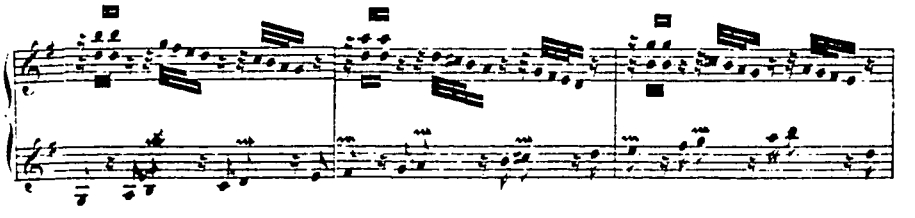
[8]Some early editions do not place a trill here since Bach was not consistent in notating all trills.

One example of trills that highlight an ascending scaler line occurs in Example 89. Since the trills have no dissonant function, a main-note execution is recommended:

Example 88: Bach, Partita no. 6, BWV 830, Sarabande, mm. 28-30



Example 89: Bach, Goldberg Variations, BWV 988, Variation 23, mm. 9-11



Series of Trills

The author found further contexts for a variety of trill designs in such a progression as shown in Example 90.[9] The penultimate beat is a cadential trill and hence would be initiated on the upper note.

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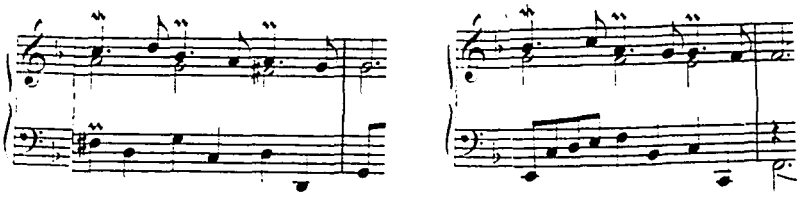
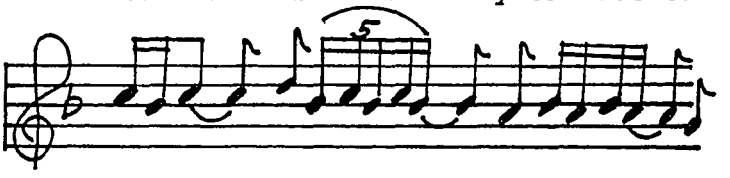
[9]Neumann has observed that, for trills in series, the individual "physiognomy" of each trill is clarified by different starting pitches. (Neumann, Ornamentation, p. 331.)

Example 90: Bach, English Suite no. 4, BWV 809, Courante, m. 12 & m. 19



However, a main-note execution of the first trill preserves the echappée configuration of the previous two notes and avoids the repetition of the first note of the mordent. The predominantly downward motion of the passage is made more clear and monotony is avoided:

Example 91: Trill realizations of m. 12 by the author



In Example 92, the author feels that the suspensions on beats three and four of the penultimate measure are compromised if a main-note trill is not executed in each case.[10] An auxiliary start for either of these trills would obscure this important harmonic effect.

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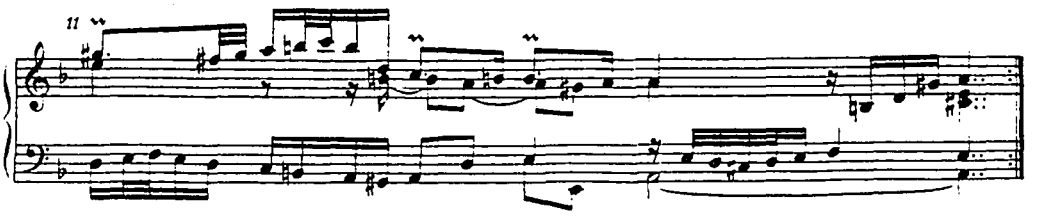
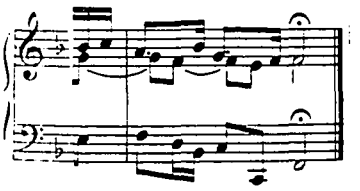
[10]This passage has been cited by Neumann. (Neumann, Ornamentation, p. 331.)

Example 92: Bach, English Suite no. 6, BWV 811, Allemande, mm. 11-12



In the Sinfonia in F, a nearly identical cadential pattern appears without trills highlighting this harmonic piquancy:[11]

Example 93: Bach, Sinfonia in F, BWV 794, m. 23



The Trill as Appoggiatura

Neumann has cited certain trills that are placed over naturally occurring appoggiaturas; superimposition of an additional appoggiatura neutralizes this natural dissonance.

In the Invention in B Minor and the Goldberg Variations there are similar trills with appoggiatura function on the main note (Example 94). In each case an upper-note execution would create an open octave.

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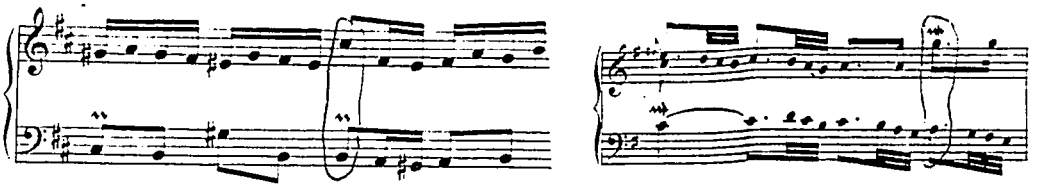
[11]The performer has the liberty to embellish trills in this passage, at least on the "G." An upper-note or main-note execution could be recommended for this trill.

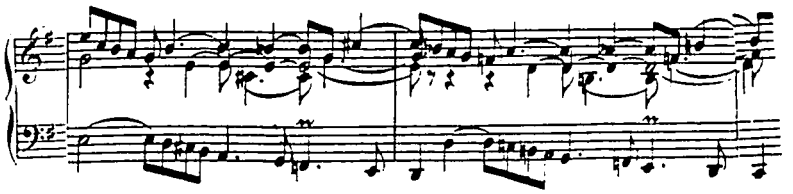
Example 94a: Invention in B Minor, BWV 786, m. 4
b: Goldberg Variations, BWV 988, Variation 16, m. 6

a b



In the Sixth Partita, the gigue contains the following passage which is representative of other harmonically bold places in Bach's keyboard music:[12]

Example 95: Bach, Partita no. 6, BWV 830, Gigue, mm. 47-48



A conventional upper-note interpretation of the appoggiatura dotted quarter notes merely restrikes the missing fifth of each of the two diminished seventh "chords" while main-note trills articulate initial dissonances against the treble. Also main-note trills clarify the downward scaler motion of the bass culminating in a low "C" at measure 49.

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[12]Similar passages occur in the Well Tempered Clavier I, Fugue 12, m. 57; and the Well Tempered Clavier II, Prelude 17, mm. 54, 56, 58, and 59.

CHAPTER VI

UPPER-NOTE TRILLS: SUGGESTED EXECUTIONS

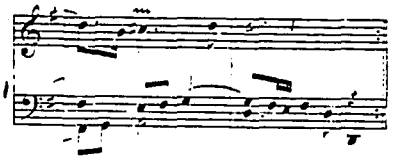
The appoggiatura trill is the primary trill design used in J.S. Bach's music. Its harmony-enriching characteristic is manifested most frequently at cadences but in other contexts as well. While some of the arguments in defense of main-note trills (e.g., prominent intervals) militate against a harmonic viewpoint, the loss of the dissonant appoggiatura is an offsetting factor. Bach, in the Clavierbüchlein ornament table, considers the appoggiatura trill important enough to give it two symbols with identical meaning (see page 20, *accent und trillo*). The treatises, with all of their simplifications, all agree on the significance of the auxiliary trill.

Cadential Formulas

The following trill examples occur at cadences. They are all instances where the conventional trill rule logically holds (Example 96).

Example 96a: Bach, French Suite no. 5, BWV 816, Sarabande, mm. 15-16
b: Bach, English Suite no. 5, BWV 810, Allemande, m. 11
c: Bach, French Suite no. 3, BWV 814, Courante, mm. 27-28
d: Bach, Invention in C Minor, BWV 773, mm. 26-27

a



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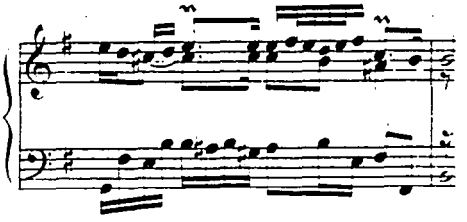

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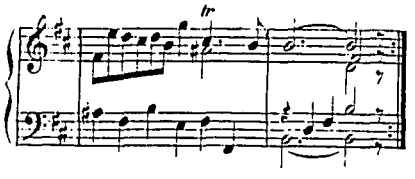
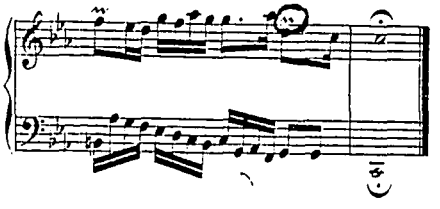
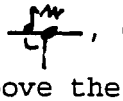


d



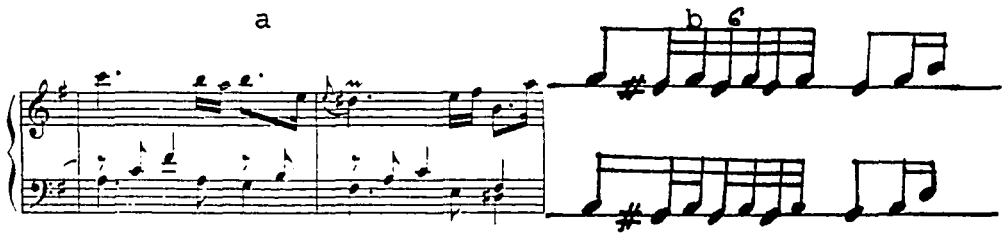
Bach's notation of an upper *Vorschlag* before a trilled note is another example of a required upper-note trill.[1] Bach's indication of these trills took one of three forms: a small note engraved before the trilled note  , or the symbols  or  engraved before or above the note

[1]Bach's inclusion of a notated *Vorschlag* could be analogous to some of the early romantic composers such as Chopin and Schumann who sometimes placed isolated pedal indications in their piano compositions. The composer therefore felt it crucial that these points be executed in accordance with his wishes while leaving the performer a great deal of latitude elsewhere.

respectively.[2] In trills of this type the only variables are the length of the upper note, the number of repercussions, and whether to use a suffix.

For example, in the Sarabande from the Fifth French Suite, the upper note can be taken as a *tremblement lié* in light of its appoggiatura quality, and the length of the dotted quarter note.[3] Possible realizations include:

Example 97a: Bach, French Suite no. 5, BWV 816, Sarabande, mm. 21-22
b: trill realizations



Similar passages abound in Bach's keyboard works where the upper neighbor is notated as a *Vorschlag*. In the Sarabande from the First English Suite, Bach indicates this type of trill design (measure 2) to highlight the imitation of the

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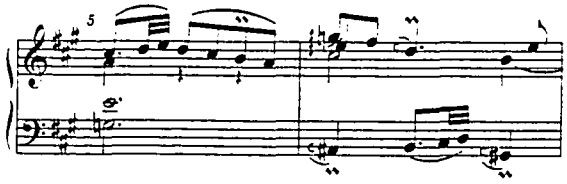
[2]Frequently the slur is used in conjunction with the *Vorschlag* symbol .

[3]Neumann notes that the *Vorschlag* should be of moderate length but not overlong according to "Berlin formulas," the accepted manner of executing appoggiaturas in the Berlin musical establishment of C.P.E. Bach.

descending eighth notes (measure 1):[4]

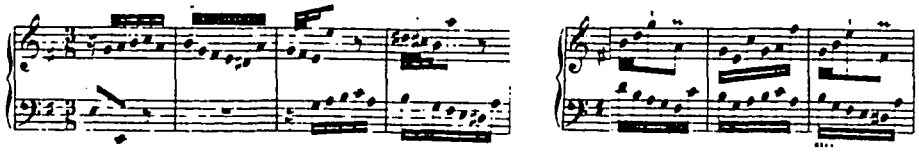
Example 98: Bach, English Suite no. 1, BWV 806, Sarabande, mm. 5-6



Melodic Outlines

Despite Dannreuther's arguments to the contrary (see page 54), the retention of a prominent melodic interval sometimes compromises the dissonance of an upper-note appoggiatura. For example, in the Prelude in E Minor the intervals of an octave and a minor seventh are less significant than the dissonance:

Example 99: Bach, Prelude in E Minor (WTC II), BWV 879, mm. 1-4 & mm. 18-20



The same holds true for the Prelude in E-flat Minor where the preservation of the descending intervals is subordinate to the harmonic interest of the appoggiaturas (Example 100).

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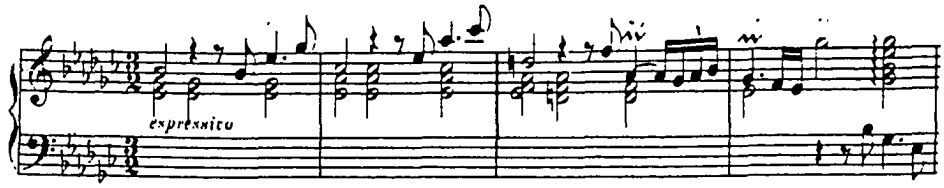
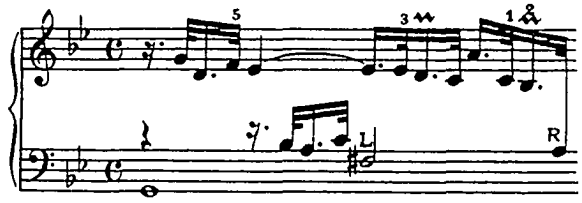
[4]In Chapter Five, a main-note interpretation was recommended for the first trill.

Example 100: Bach, Prelude in E-flat Minor (WTC I), BWV 853, mm. 1-4

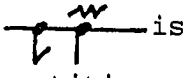


In the Prelude in G Minor the recurring seconds are better served by appoggiatura trills which articulate dissonances against the half note basses:

Example 101: Bach, Prelude in G Minor (WTC II), BWV 885, m. 1



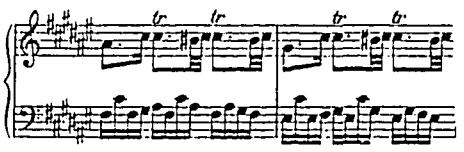
Melodic Formulas

A trilled note prefaced by the same pitch  is normally taken with the auxiliary unless the repetition of the main note is of unusual thematic significance.[5] Example 102 gives some instances.

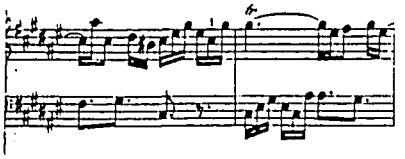
[5]For example, in the already cited (p. 53) Fugue in F-sharp (WTC II), the recommended main-note trill of the opening statement should be preserved for the many repeated note trills.

Example 102a: Bach, Prelude in F-sharp (WTC II), BWV 882, mm. 26-27
b: Bach, Prelude in F-sharp (WTC I), BWV 858, mm. 6-7
c: Bach, Invention in C Minor, BWV 773, m. 15

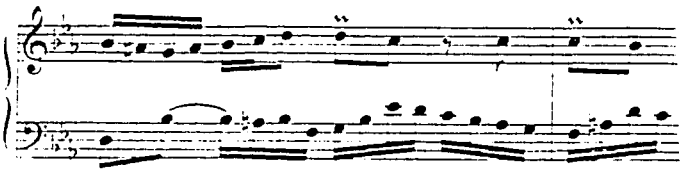
a

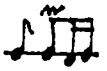


b

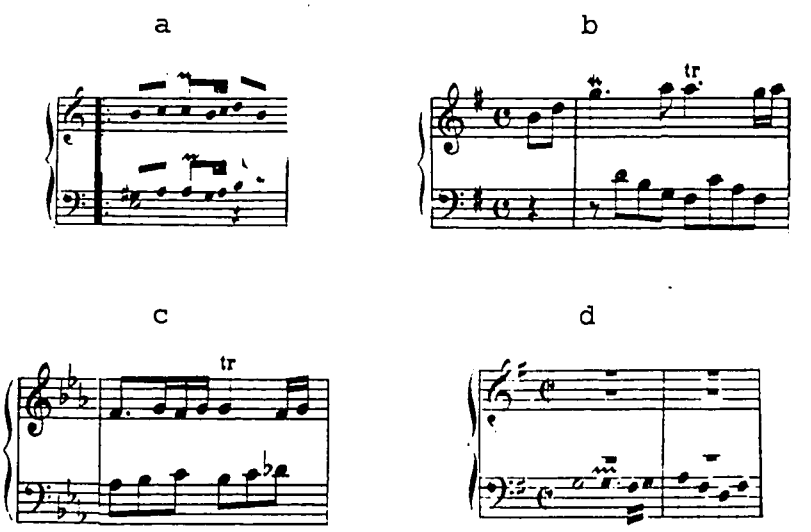


c



A related melodic pattern that favors appoggiatura treatment is  . This formula, a repeated note with two appended closing notes (*Nachschlag*), occurs in numerous places in Bach's keyboard works, and is a prime example for an upper-note trill in almost every context. The pattern with some of its variants appears below (Example 103).

Example 103a: Bach, Partita no. 3, BWV 827, Burlesca, m. 18
b: Bach, French Suite no. 5, BWV 816, Bourée I, m. 1
c: Bach, French Suite no. 4, BWV 815, Gigue, m. 30
d: Bach, Goldberg Variations, BWV 988, Variation 10, mm. 1-2

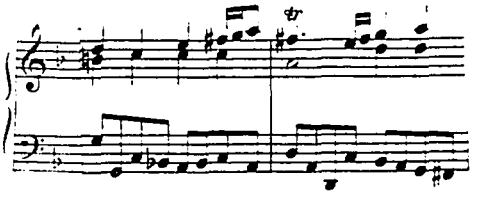


Descending Thirds

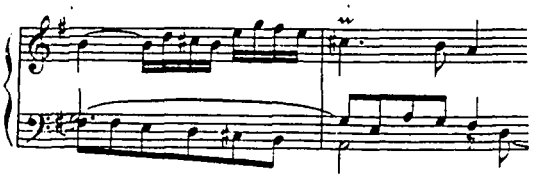
When a note descends a third to a trilled note and the interval is not melodically significant, an upper-note interpretation is recommended to fill in the gap. Several examples follow (Example 104).

Example 104a: Bach, English Suite no. 6, BWV 811, Gavotte I, mm. 15-16
b: Bach, French Suite no. 5, BWV 816, Sarabande, mm. 11-12
c: Bach, English Suite no. 1, BWV 806, Bourée I, mm. 19-20

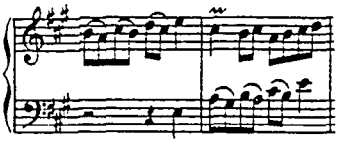
a



b



c



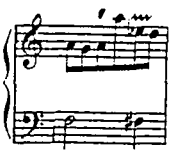
Choice of Trill Designs

Sometimes a case can be made for initiating a trill on either the upper or the main note, where most performers responsibly respect the treatise writers and play an upper-note trill. Example 105a especially benefits by the clash of "F natural" and "F-sharp".

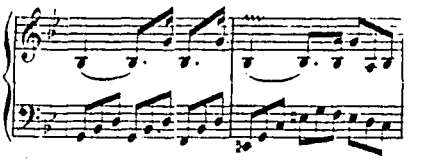
Example 105a: Bach, English Suite no. 2, BWV 807, Sarabande, m. 10

b: Bach, Partita no. 1, BWV 825, Courante, mm. 21-22

a



b

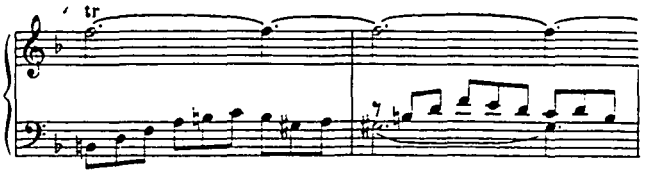


Some scholars write that Bach's long trills function mainly to extend the duration of a particular tone, and hence can be started on either the upper or main note.[6] The following examples, when taken with the upper note, demonstrate the advantage of highlighting the dissonant neighbor:

Example 106a: Bach, English Suite no. 6, BWV 811, Prélude, m. 7-8

b: Bach, Invention in D Minor, BWV 775, mm. 19-21

a



b

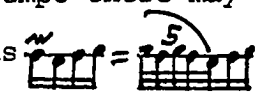
[6]See Donington, The Interpretation, pp. 253-54.

CHAPTER VII

ANTICIPATORY TRILLS: SUGGESTED EXECUTIONS

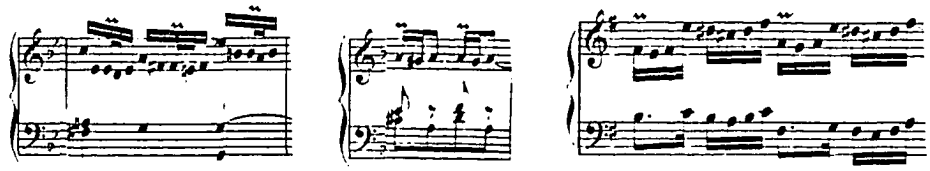
There is no mention of pre-beat trills in any of Bach's writings or the prescriptive treatises that followed. However, there are certain problematic contexts (often of a rhythmic nature) where an on-beat execution sounds stilted or awkward. In these places it may be advantageous to consider trills that anticipate the beat. Since Neumann is sometimes sketchy in his criteria for using anticipatory trills (particularly grace note trills), additional musical examples follow which support his premise. When taken before the beat, these trills are arguably more convincing from an artistic standpoint and facilitate technical ease. The solutions proposed are suggestions only; there are other viable options in view of the conjectural nature of this subject. Neumann admits to the lack of historical evidence for anticipated trills, but his arguments tend to support occasional departures from the traditional on-beat rule.

The anticipated *Schneller*, although not described by J.S. Bach and most of the theorists that immediately followed him, is probably the most useful and justifiable of these anticipations. In the majority of cases technical facility is the overriding consideration for its use. When

a trill occurs in a moderate to rapid tempo there may not be time to work it in as Aldrich recommends  or even play a *Schneller* directly on the beat. The following representative examples are indicative of many Bach trills where an anticipated *Schneller* can be considered:

Example 107a: Bach, Partita no. 1, BWV 825, Sarabande, m. 19
b: Bach, Italian Concerto, BWV 971, I, m. 91
c: Bach, English Suite no. 5, BWV 810, Allemande, m. 21

a b c

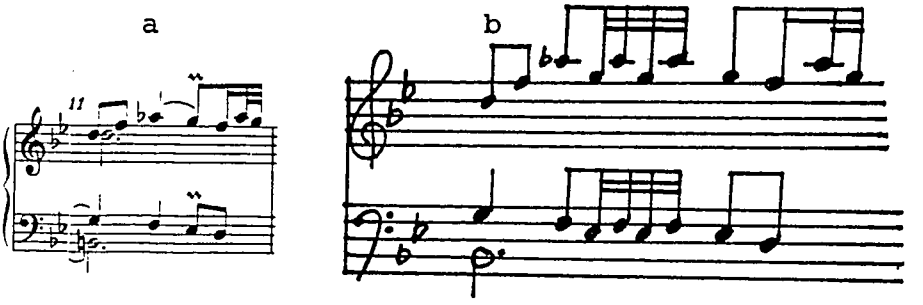


One example suggesting an anticipated trill occurs in the Sarabande from the Third English Suite (Example 108). Owing to the rather busy rhythmic configuration of beat three, a short trill seems in order.[1] It certainly is possible to initiate the trill in the manner of a standard *tremblement lié*: the left hand begins its trill on the upper note while the right hand's slightly delayed entrance synchronizes with "G" against the left hand "E." However, the rhythm and melodic line may be clarified by the

[1]A short anticipated trill is better suited for the ornamented version of the Sarabande (where the note values for beat three are halved).

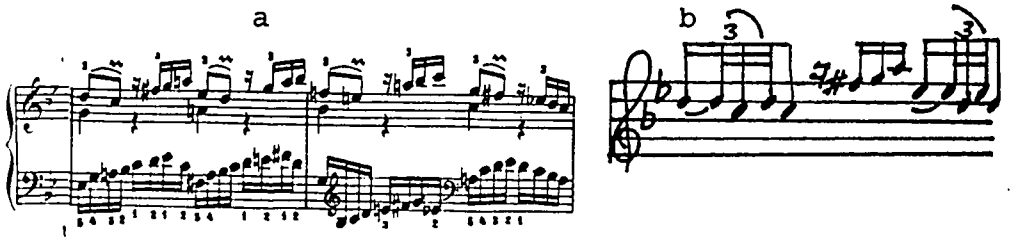
following interpretation:

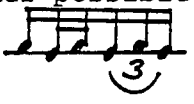
Example 108a: Bach, English Suite no. 3, BWV 808, Sarabande, m. 11
b: trill realization by author



The following example from the Second Partita has already been cited (pages 97-98) as an ascending sequence containing three trills that are examples of the *tremblement lié*. Besides a main-note execution, one option is to play an anticipated *Schneller*:

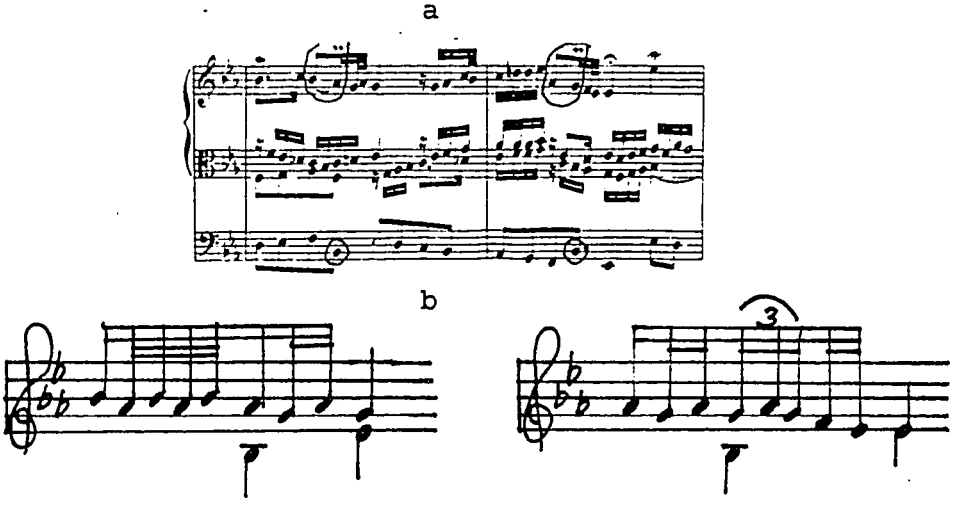
Example 109a: Bach, Partita no. 2, BWV 826, Allemande, mm. 9-10
b: trill realization by author



Another possible interpretation is a partially anticipated trill  , but this could sound muddled.

In the miniature chorale "O Mensch, bewein' dein' Sünde gross" from Bach's Orgelbüchlein, the author found a similar example of the *tremblement lié* where a standard realization would obscure the rhythm of the phrase, especially since the two trills are cadential. Since the first cadence is imperfect (ending on "G") in contrast to the second one (ending on the tonic "E-flat"), a proposed interpretation might be to play a fully anticipated trill or anticipated *Schneller* the first time and a partially anticipated trill the second time. Such a juxtaposition gives each trill a different character: the first trill ends on a dissonance while the second trill alternates between consonance and dissonance, however fleetingly:

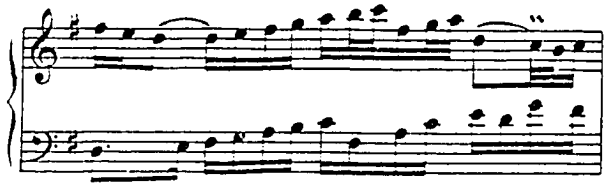
Example 110a: Bach, "O Mensch, bewein' dein' Sünde gross," BWV 402, mm. 11-12
b: fully and partially anticipated trill realizations by author



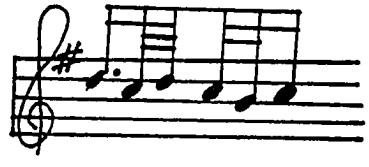
There are several places in Bach's solo keyboard music where the use of an anticipated trill maintains a particularly distinctive rhythm or rhythmic grouping. In the following example, an anticipated *Schneller* continues the anticipatory rhythm of the preceding beat and avoids the technical awkwardness that an on-beat execution would create:

Example 111a: Bach, English Suite no. 5, BWV 810, Allemande, m. 19
b: trill realization by author

a



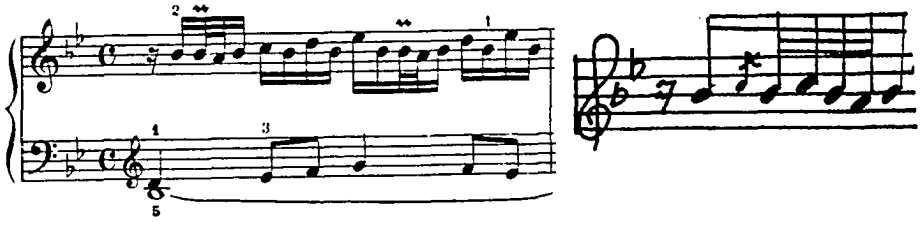
b



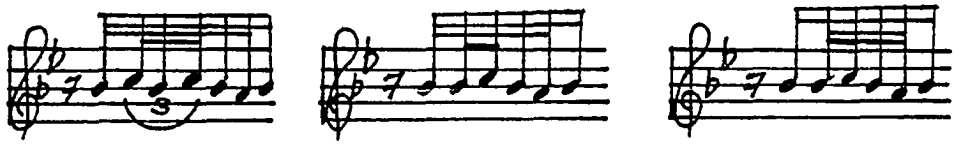
For the beginning of the First Partita, Edward Dannreuther makes the rather novel suggestion (considering his writings date from almost a century ago) to initiate trills slightly before the beat (Example 112). Other options include a fully anticipated trill, an anticipated *Schneller*, or an on-beat *Schneller* (Example 113).

Example 112a: Bach, Partita no. 1, BWV 825, Praeludium, m. 1
b: grace note trill realization by Dannreuther

a b



Example 113: Trill realizations by author



As mentioned earlier, Neumann cites only a few examples of grace note trills used to avoid unpleasant consecutives. Additional examples follow.

In the following example parallel fifths would result from an upper-note trill. A grace note interpretation works well here:

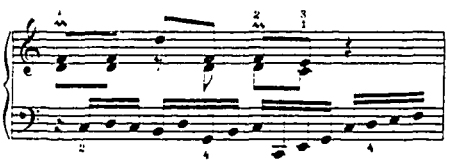
Example 114a: Bach, Little Prelude and Fugue in A Minor, BWV 895, m. 13
b: grace note trill realization by author

a b

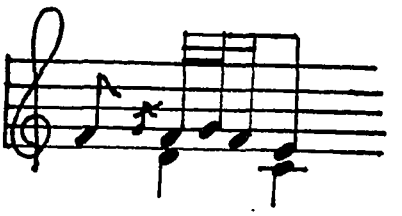
In Example 115 a similar approach might be welcome since parallels are avoided:

Example 115a: Bach, Little Prelude in C, BWV 933, m. 2
b: grace note trill realization by author

a



b



One example where a literal observance of the trill rule would create harmonic blandness occurs in the Toccata from the Sixth Partita. An upper-note/on-beat trill would produce hollow octaves on the trilled note of each sigh motive (beginning at measure 30). This is a good example of neutralized dissonances. To the author, this three note motive, couched in a musical setting of gravity and seriousness, suggests the preservation of the dissonant seventh; he recommends a grace note interpretation for most of the trills in the movement (Example 116).[2]

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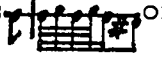
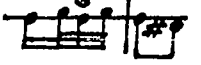
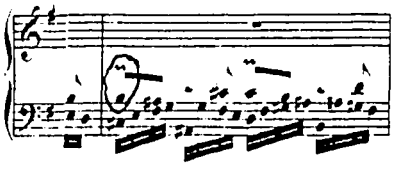
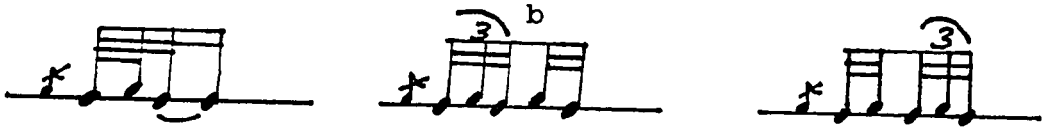
[2]Some players might even choose to execute main-note trills  or fully anticipated trills  .

Example 116a: Bach, Partita no. 6, BWV 830, Toccata, m. 30
b: grace note trill realizations by author

a





CHAPTER VIII

BACH'S TRILLS: INTERPRETIVE ELEMENTS

The following sub-categories of trill interpretation have been broached by a number of the treatises of Bach's era. The author presents some additional commentary on these peripheral areas of trill interpretation using the treatises and modern writers as a point of departure. Dr. Malcolm Hamilton, distinguished harpsichordist and professor of music at the University of Southern California, also graciously permitted the author to interview him on the subject of interpreting Baroque trills. His viewpoints are included in the discussion below.

Speed and Number of Repercussions

The major writers of treatises (C.P.E. Bach, Quantz, and Leopold Mozart) are in agreement that questions of trill velocity are a personal decision based on the performer's judgement. François Couperin, in L'art de toucher le Clavecin, is one of the first writers to describe a gradually accelerating trill for certain musical contexts.[1] Quantz recommends trills played with a steady measured pace, but varied in speed according to the taste of the performer.

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[1]Couperin, L'Art, p. 23.

He writes that "You must be able to distinguish the character of each piece you play so that you do not confuse those of one sort with those of another, as many do. In melancholy pieces the shake must be struck more slowly, in gay ones more quickly."[2] In reference to acoustics, he adds that it is preferable to play a trill slower in an acoustically live room and faster in a more muted locale.[3] However, Quantz warns of excesses at either extreme of tempo. He uses the French word *chevroté* (bleating) to characterize the excessive trill speed used in French singing.[4] Leopold Mozart appropriates most of Quantz's remarks on trill speed in his Violinschule.[5] C.P.E. Bach prefers a more rapid trill to a slower one, adding that "In sad pieces the trill may be broadened slightly, but elsewhere its rapidity contributes much to a melody."[6]

Dr. Hamilton concurred that the speed of a trill depends entirely on the character and mood of a piece.[7] He

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[2]Quantz, On Playing the Flute, p. 101.

[3]Ibid.

[4]Ibid., pp. 101-102.

[5]Leopold Mozart, A Treatise on the Fundamental Principles of Violin Playing, (New York: Oxford University Press, 1951), pp. 186-202.

[6]C.P.E. Bach, Essay, p. 101.

[7]Malcolm Hamilton, interview by author, January, 1993, Laguna Niguel, CA.

noted that he does not measure his trills in a pedantic manner but synchronizes them with the other moving parts so that they tend to sound rhythmical. He mentioned that in his own performance of the trill at the beginning of the Prelude in G Minor (Well Tempered Clavier I) he holds the "G" momentarily and then begins a gradually accelerating trill so that the trill ends at a speed approximating sixty fourth notes.[8] The intervals surrounding the trill also affect trill speed according to Dr. Hamilton. For example, if a trill does not have an upper-note appoggiatura then it might be shorter and faster. The overriding consideration is how the trill *sounds* in a particular context, thus recommending caution regarding ironclad rules.

Another question is whether the oscillations should run through the duration of the trilled note. For notes of some duration, a slower trill will leave less time for "space" while a faster trill (given the same tempo and number of repercussions) leaves more time:

Example 117: Slower, faster trills

Bach's examples in the Clavierbüchlein show the trill evenly

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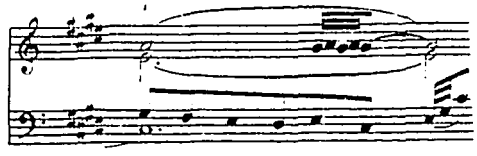
[8]This interpretation is similar to the one advocated by Willard Palmer in his edition.

subdivided as does C.P.E. Bach's treatise.[9] C.P.E. Bach also advises a slight ending breath on trills over dotted notes or followed by notes of anticipation. A slightly faster speed is necessary to allow for this breathing space. One trill found in the Prelude in C-sharp Minor (Well Tempered Clavier I) can serve as an example for different approaches to speed (Example 118).[10] In Palmer's realization, the appoggiatura occupies most of the trill's duration; three oscillations are executed over beat three. Two additional realizations are given below, though many others are possible:

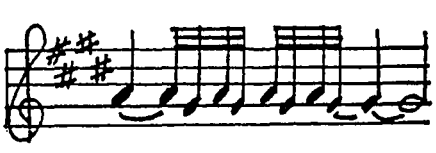
Example 118a: Bach, Prelude in C-sharp Minor (WTC I), BWV 849, m. 2
b: trill realization by Willard Palmer
c: trill realizations by author

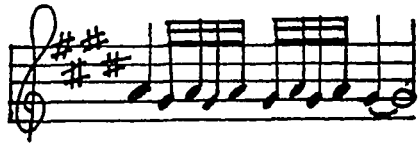
a

b



c

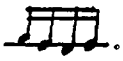
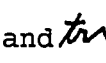


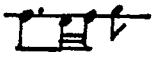


[9]C.P.E. Bach, Essay, p. 101.

[10]Example 121 is taken from the Willard Palmer edition of the WTC I. Palmer notates many of the trill realizations.

Trill Suffixes

The suffix for the Baroque trill (also called *Nachschlag*, termination, or closing notes) consists of two appended notes which, when combined with the trill's final oscillation, form a turn:  .[11] Bach generally notates trill suffixes as regular size notes; less commonly he uses the symbols  and  .

Bach was not consistent in notating trill suffixes. In many instances they should be added by the performer. In other works he was redundant to the point of near absurdity: Neumann notes that in the first movement from the Christmas Oratorio Bach writes out the figure  one hundred and fourteen times, even though performers would surely include the closing notes after a few examples.[12] Johann Schiebe (1708-1776), a contemporary of Bach, could have been annoyed at this occasional proliferation of *Nachschläge* since he felt that a performer's prerogative to extemporize *Nachschläge* was compromised.[13]

Generally in slow to moderate tempos Bach uses a suffix notated in thirty-second notes while in faster tempos they are written in sixteenth notes. These note values are

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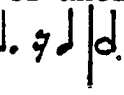
[11]Sometimes, in minor keys on tonic notes, the seventh is normally raised.

[12]Neumann, Ornamentation, p. 341.

[13]David and Mendel, The Bach Reader, p. 238.

approximations and it is not imperative to slavishly follow them since trill suffixes generally are performed at the same speed as the trill proper.[14]

However, according to Donington this practice can be qualified in several cases: 1) when the speed of the trill is not too fast the last two notes can be lingered on for expressive effect but not to the point of mannerism, 2) when the trill gradually accelerates, the closing notes can be slightly lengthened, and 3) after the completion of the trill and closing notes a slight silence of articulation may be observed, but it must be judiciously employed.[15]

Another form of close is the anticipated ending. Bach generally reserves this ending for cadential settings. Here the trill ends early and on the main note; there is a slight lingering on the main note which may be followed by a silence of articulation. A note of anticipation then leads directly to the following note 

This melodic formula is governed by the standard Baroque convention of dotted notes, in other words the realization of the anticipated note is normally shorter than

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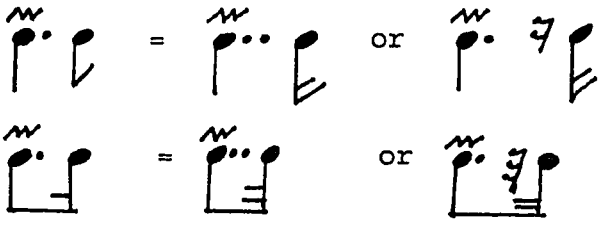
[14]Aldrich writes that the speed of the trill should be taken from the notated value of the closing notes (Aldrich, "The Principle *Agréments*," p. 334). This is a questionable practice since many writers agree that Bach's closing notes are not usually notated as rhythmical suggestions.

[15]Robert Donington, "Ornaments," in New Grove Dictionary of Music and Musicians, (London: Macmillan, 1980), Vol. 13, p. 839.

the notated value:

Example 119: Rhythmic realization of trills with notes of anticipation



The duration of silence may be slightly longer for more brilliant contexts than more expressive passages.[16] The anticipated note is normally unaccented.

C.P.E. Bach specifically indicates contexts where trill suffixes are *not* appropriate (Example 120).[17] They are omitted in a) descending successions of notes, b) series of trills, c) triplets, d) over short notes, and e) when followed by notes which can substitute for a trill suffix. He notes that the average ear can usually detect if trill suffixes are necessary.

The author cites the following examples from J.S. Bach's music (none of which have notated closing notes) contrasting suffixed and unsuffixed trills (Example 121).

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[16]Donington notes that if the silence is too brief the anticipated note merges with the previous trill (see p. 76).

[17]C.P.E. Bach, Essay, pp. 104-105.

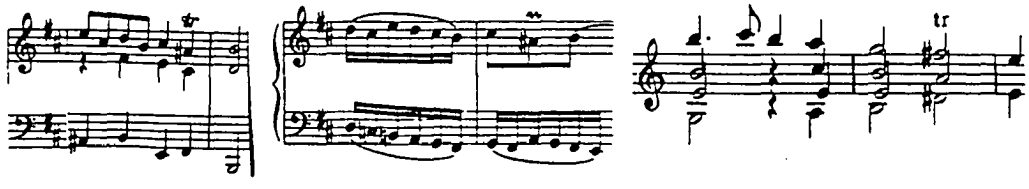
Example 120: C.P.E. Bach, contexts for omitting suffixes

a b c

d e

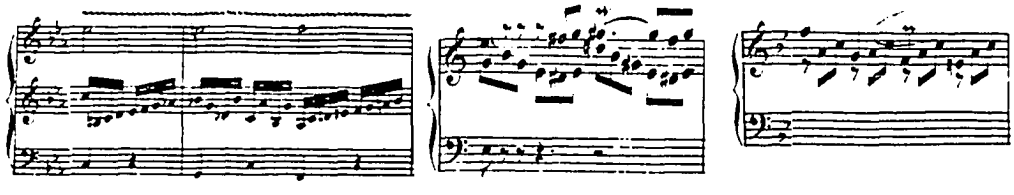
Example 121a: Bach, Overture in the French Style, BWV 831, Gavotte I, mm. 23-24
b: Bach, Invention in D, BWV 774, mm. 21-22
c: Bach, Sonata for Solo Violin, BWV 1005, II, mm. 163-64
d: Bach, Trio Sonata no. 2, BWV 526, I, mm. 69-70
e: Bach, Partita no. 3, BWV 827, Gigue, m. 44
f: Bach, Partita no. 1, BWV 825, Gigue, m. 5

a b c



suffix recommended

d e f

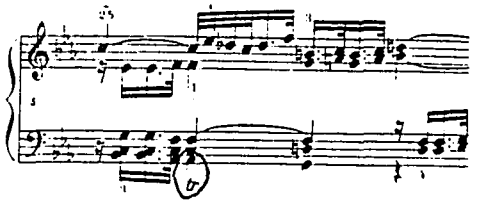


suffix not recommended

Choice of Instrument

Dr. Hamilton indicated that the choice of a particular instrument (e.g., harpsichord or piano) was not as important as the action of a given instrument for trill playing. For example, the action of a grand piano is generally more sluggish than the lighter one of the harpsichord and might call for a slower trill. This is particularly true in certain bass trills which can sound particularly murky on the piano when played at an excessive rate of speed. In the next example, the bass trill would sound quite muddled as well as prove technically difficult. A simpler solution would be to play a *Schneller*:

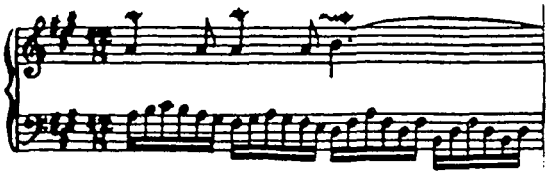
Example 122: Bach, Partita no. 2, BWV 826, Sinfonia, m. 5



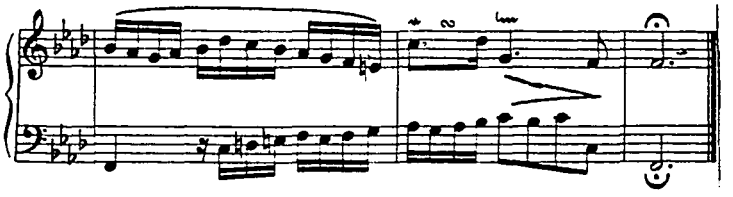
Certainly the harpsichord has the advantage in passages such as the following where snappy rhythmic mordents and trills are juxtaposed with brilliant scaler runs (Example 123). However, the piano, with its ability to gradate levels of sound, can provide greater expression and certain refinements in trill playing. In Example 124 the final

cadential trill may be played with an expressive diminuendo.

Example 123: Bach, Invention in A, BWV 783, m. 1



Example 124: Bach, Invention in F Minor, BWV 780, mm. 32-34



Extemporization of Trills

On the subject of improvised trills, no definitive rules can be formulated. It is known that Bach was particularly prolific in adding ornaments to the works of other composers. It has been mentioned that during Bach's lifetime it was customary to distinguish between obligatory ornaments which were usually written down by composers, and arbitrary ones which were to be added by the performer. Of the treatise writers, C.P.E. Bach has the most to say on the subject of ornament extemporization. He cautions against a prodigious use of trills: "They should be regarded as spices which may ruin the best dish or 'gewgaws' (trifles) which

may deface the most perfect building."[18] William Mitchell observes that C.P.E. Bach was undoubtedly influenced by his father's stand on adding ornaments, but that he wanted only adept performers to engage in this performance practice.[19]

Aldrich cites the German theorist Georg Muffat (Florilegium II, 1698) as an authority for the extemporization of trills in Bach's music.[20] Muffat writes that whenever the penultimate note of a cadence (particularly when it occurs in a dotted rhythm) is the third or fifth of the dominant chord, it is proper to add a trill if it is unmarked:

Example 125: Muffat, improvised trills on the third or fifth

In contexts other than the cadence, Muffat can be summarized as follows:

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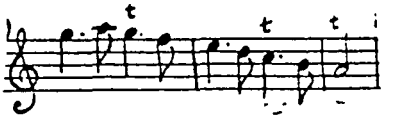
[18]Ibid., p. 81.

[19]Mitchell's comments were taken from critical notes in his edition of C.P.E. Bach's Essay. (Ibid.)

[20]He notes that the reliability of Muffat's guidelines can be easily tested. If one were to omit all trills in a representative keyboard work of Bach and add them according to Muffat's rules, it will be found that they generally coincide with the trills indicated by Bach or one of his pupils. (Aldrich, "The Principal *Agréments*," p. 339.)

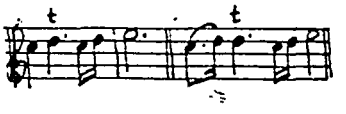
1) trills are preferable when added to passages in descending conjunct motion and on a strong beat:

Example 126: Muffat, descending improvised trills



2) trills can be added to passages in ascending conjunct motion on a weak beat, especially when it is a component of a three note ascending sequence. In this case a suffix should be used:

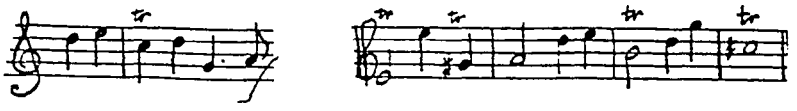
Example 127: Muffat, ascending improvised trills



3) trills are added less frequently to upward and downward skips; they should be restricted to the skip of a third to a strong beat and the skip to a mediant or leading tone (Example 128).

Example 128a: Muffat, skip to a strong beat
b: skip to a leading tone

a b



Of the modern writers, Donington notes that the absence of an ornament sign (in an obligatory context) does not mean its omission. In fact the lack of a notated ornament often indicates that its execution should be obvious.[21]

Frederick Neumann cites the various corrections of ornaments found in Bach's original notation of the Inventions and Sinfonias in the Clavierbüchlein (1720) and their later manifestations in Bach's fair copy (1723) and copies by Bach's students. He raises the question whether or not the earlier sparsely ornamented versions were to be performed in the manner of subsequent versions.[22] For example, in the Invention in E-flat, Bach's unornamented version from the Clavierbüchlein could be considered a blueprint for Gerber's ornamented version (Example 129).

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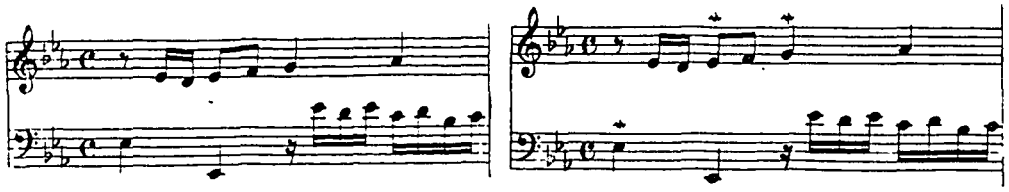
[21]Donington, The Interpretation, p. 622.

[22]Neumann, Ornamentation, pp. 549-50.

Example 129a: Praeambulum in E-flat, BWV 776 (Clavierbüchlein), m. 1
b: Invention in E-flat, BWV 776, m. 1

a b



There is no reason to question the principle that trills may be added even where not indicated by Bach.[23] This is particularly true of fugue subjects. Often trills were omitted at subsequent reappearances of a subject because the performer ostensibly knew where to add them. A skilled performer of Bach's era was also expected to supply additional ornaments in repeated or *da capo* sections of many works.[24] If a piece had no repeats, a performer could still supply additional ornaments if they contributed to the overall *affekt*. Finally, it was entirely appropriate to add ornaments to sections of an improvisatory, expressive, or *arioso* character.

Sometimes the addition of trills creates additional problems of voice leading: parallels, hollow harmonies, or

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[23]For example, Bach would sometimes indicate one or more trills at the beginning of a piece and infer that additional trills be supplied by the performer (see Prelude in G Minor, WTC II).

[24]Additional ornamentation was usually expected in pieces in a slow or moderate tempo.

unwanted consonance/dissonance. Therefore the insertion of trills should be evaluated selectively. However, in cadential contexts, the insertion of a trill is usually justified whether indicated or not.

CHAPTER IX

SUMMARY

After analyzing trills in Bach's keyboard music and some of his instrumental works, the author has found that a wide degree of latitude is necessary to execute Bach's trills in intelligent fashion. At the beginning of this paper, some historical evidence was presented for main-note trills by composers that predated J.S. Bach. The bulk of discussion has been devoted to the opinions of twentieth century scholars along with some internal evidence in Bach's music. These inferences suggest that departures from upper-note trills were not uncommon but the extent of their use by Bach is not clear. Unfortunately, we have no clarifying writings from Bach's contemporaries based on his actual performance of trills on keyboard instruments.

On the subject of historical precedents, it seems clear that main-note trills did not die out in the second quarter of the eighteenth century, as several Bach scholars of the twentieth century (e.g., Aldrich and Klotz) have maintained. Although the French trill utilized by D'Anglebert and Couperin was widely emulated on the European continent, German composers did not abandon their indebtedness to Italian trill designs. Bach inherited a *potpourri* of

ornamental designs which he studied, assimilated, and synthesized into an amalgamation of several major national schools.

The most obvious manifestation of upper-note trills in Bach are the upper-note models in the Clavierbüchlein ornament table, while main-note trills are found unequivocally notated in various keyboard and instrumental works. Various writers are convinced that Bach used the *Schneller*, an abbreviated main-note trill, when there was not time to accommodate a trill of conventional length and perhaps in other contexts as well; it is hardly likely that he would rule out additional oscillations which result in a main-note trill. It is not farfetched, therefore, to assume that Bach preferred a multiplicity of designs and tailored his trills to certain aural, technical, or structural demands of a piece.

The treatises dating from the years 1720-1780 do little to clarify the interpretation of J.S. Bach's trills but rather inform the reader of trill practices common to the treatise writer and the writer's circumscribed geographical area. The theorists were grappling with conflicting ornamental practices from different regions of the Continent that were only beginning to be codified. During the early decades of the eighteenth century, upper-note trills were increasingly utilized and it is possible that the majority

of composers adopted this trill design simply out of expediency. However, agreement was by no means universal.

A number of modern writers fall within the moderate category in regards to trill interpretation. They agree that upper-note trills are the standard late Baroque practice with occasional departures for exceptional considerations. These considerations include parallels, breaches of legato, preservation of a characteristic interval or melody note, dissonance, and technical ease (see Appendix A). The writers who occupy the more reactionary (e.g., Aldrich) or liberal (e.g., Neumann) schools of opinion are ultimately not serious challenges to a more moderate, reasoned approach because of their slavish obedience to tradition or their conjectural arguments.

The subject of anticipated trills in Bach's music is more speculative. There are few, if any, inferences of them in Bach's music and none in the scholarly treatises that followed. Collins, although concentrating mostly on the evidence of the French harpsichord school, does present evidence that Bach wanted certain trills to be played only on the beat. Neumann, however, in defense of anticipated trills, underscores their rhythmic rather than harmonic significance, and their capacity to avoid unpleasant parallels. A number of examples from Bach's works show that anticipated trills do have a place but they should be

applied judiciously to clarify rhythmic interpretation, avoid voice leading problems, or facilitate technical ease.

The Handel pieces for musical clock (see Appendix B), though entirely removed from the geographical and social milieu in which Bach composed, are taken from the Italian ornamental school and were composed during Bach's lifetime. Transcriptions from the mechanical cylinders reveal both main and upper-note trill designs with no apparent bias towards either type. These pieces provide firsthand musical evidence that both types of trill were being employed in Europe during Bach's lifetime.

The adaption of convenient formulas for Bach's trills has been historically quite tempting but can create a host of other stylistic problems. The author hopes that performers of Bach's music do not hesitate to question the scholarly but sometimes limited dictates of the treatise writers. Likewise, the opinions of twentieth century writers and musical performers themselves have to be evaluated by the breadth and authenticity of their scholarship and not a blind obedience to outworn conventions in the guise of an "authentic" interpretation. The musical purist who looks to the treatises as a blueprint for all facets of Baroque performance practices is certainly in error. There can be no definitive method of performing

Bach's trills any more than there is one way of performing his music. It is hoped that the presentation of alternate possibilities for trills will encourage the performer to make informed choices. These ornaments can then be an enlivening adjunct to the beauty of Bach's music.

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APPENDIX A

GUIDELINES FOR TRILL DESIGNS

MAIN-NOTE TRILLS

parallels
legato slurs
suspensions
harmonic aspects
intervallic aspects
appoggiaturas
series of trills
melodic outlines
echappées

GRACE NOTE TRILLS

parallels
redundancy
tone repetition
simultaneous trills

UPPER-NOTE TRILLS

cadential formulas
preceded by small note
tremblement lié
melodic outlines
melodic formulas
descending thirds
choice of trill designs

PARTIALLY ANTICIPATED TRILLS

simultaneous trills
redundancy
compromise between
grace note and
fully anticipated
trill

PREPARED UPPER-NOTE TRILLS

appoggiaturas
cadential formulas
preceded by small note

FULLY ANTICIPATED TRILLS

rhythm
accentual problems
technical problems

APPENDIX B

THE TRILL IN HANDEL'S MECHANICAL ORGAN MUSIC

The writer was able to visit the personal record and tape collection of Mr. William Malloch, musicologist and classical music programmer for radio station KPFK in Los Angeles, CA. Mr. Malloch has developed an interest in self-playing mechanical musical instruments (automophones) and has personally visited the Nationaal Museum van Speelklok tot Pierement, Utrecht (Netherlands), home to one of the world's greatest collections of mechanical musical instruments. He graciously permitted the author to listen to several private recordings of two mechanical organ clocks made in this museum. This included a recording of the "Windsor Castle" Handel/Clay mechanical organ clock dating from 1738-40.

The "Christie's" and "Windsor Castle" Handel/Clay clocks (so called because the former was auctioned off at Christie's of London in 1972 and the latter was discovered in a storeroom underneath Windsor Castle in 1984) are discussed in some length by Haspels.[1] Charles Clay (d. 1740) was an eminent London clockmaker whose craftsmanship was probably responsible for the composition of Handel's

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[1]Jan Jaap Haspels, Automatic Musical Instruments: Their Mechanics and Their Music, 1580-1820. (Utrecht: Nationaal Museum van Speelklok tot Pierement, 1987), pp. 184-87.

mechanical music. The existence of this body of music is of comparatively recent origin: William Barclay Squire published his "discovery" of it in 1919. It is here that he acknowledged Handel's dedication of at least one set of ten tunes to the Yorkshire clockmaker. The collection was passed through several hands (including those of Charles Jennens, Handel's librettist) and found its way into the collection of musical manuscripts owned by Lord Aylesford. This was the source material from which Squire eventually published his findings.

The value of these clocks for a general understanding of ornamental practices cannot be overestimated. The study of the cylinders from automophones of Bach's day afford the listener the singular experience of hearing how contemporary compositions sounded at the time of their writing, a type of musical time capsule.

Unfortunately there are no extant examples of mechanical instruments playing J.S. Bach's music; if they ever did exist they were destroyed or have not been recovered. Mr. Malloch personally conferred with W.J.G. Ord-Hume, one of the world's experts on this genre of music research, who verified that there are no existing cylinders pinned with J.S. Bach's music.

A comparison of Handel's ornamentation with that of J.S. Bach is interesting because of the close parallels of

their lifespans. However, to compare them only to find similarities is probably as shortsighted as the dissimilar nature of their lives, experiences, and *modus operandi* in composing music. Lang writes:

> Bach and Handel and their works represent and express two fundamentally different worlds. They can neither be compared nor joined nor opposed; they complement each other and only thus give the Baroque its "twin peaks."[2]

It is understandable that the two composers' approaches to the trill are dissimilar. Neumann observes that Handel was a product of the Italian school of ornamentation where main-note trills predominate. The trills appearing on the "Windsor Castle" cylinder in particular bear this out. Nevertheless, in view of the cosmopolitan nature of Handel's music and the fact that these pieces were composed and "recorded" at the same time that Bach was composing makes them attractive and inevitable models for comparison.

Pieter Dirksen has meticulously transcribed two sets of ten tunes from the "Christie's" and "Windsor Castle" musical cylinders into modern musical notation.[3] Apart from their musicological interest (these Handel pieces had never before been published), the transcriptions are of particular value

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[2]Paul Henry Lang, Handel. (New York: W.W. Norton & Co. Inc., 1966), p. 696.

[3]These are contained in Haspel's book, Automatic Musical Instruments.

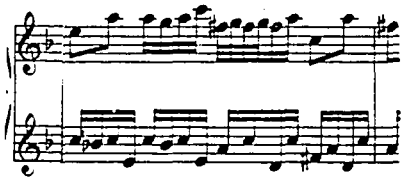
for this study because of their precise depiction of ornamentation.[4]

In the Handel pieces for both the "Christie's" and "Windsor Castle" clocks, upper and main-note trills exist side by side in random fashion. Considering Handel's predilection for Italian ornaments, it is not surprising that he uses both upper and main-note trills with such casual interchangeability.

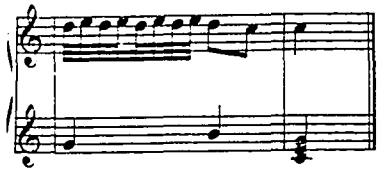
The "Windsor Castle" cylinder contains ten tunes (three of which are duplicated on the "Christie's" cylinder) which are either unidentified pieces or arrangements from Handel's operas. What is particularly interesting about the ornamentation in the "Windsor Castle" cylinder is the preponderance of main-note trills. The following excerpted examples suffice to demonstrate this:

Example 130a: Handel, "Windsor Castle," piece no. 11, m. 11
b: piece no. 18, mm. 42-43

a



b

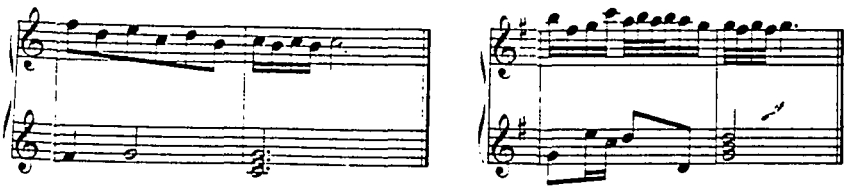


[4]Dirksen's fastidious rhythmic notation sometimes borders on the absurd if one is to take the ornaments literally, i.e., in terms of technical playability for a human performer. The fact that the music was originally conceived for a mechanical instrument may account in part for his rhythmic exactitude in realizing the ornaments.

It is interesting that several of the transcriptions contain multiple mordents on the last note of the piece:

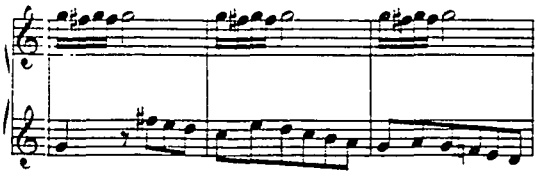
Example 131a: Handel, "Windsor Castle," piece no. 16, mm. 43-44
b: piece no. 12, mm. 43-44

a b



The author was able to find only one example of upper-note trills:

Example 132: Handel, "Windsor Castle," piece no. 16, mm. 16-18



Indeed if one takes the trills on the "Windsor Castle" and "Christie's" cylinders as a whole then no guidelines, rules, to say nothing of main-note versus upper-note trills can be formulated. Even within a single trill design (e.g., upper note), the observer will not find precise sub-categories as exemplified in Bach's Clavierbüchlein. There is an interchangeability of styles: lower-note trills and

multiple mordents exist alongside conventional upper-note trills. Prepared main and upper-note trills are found along with prepared main and upper-note trills containing an added suffix.

Haspels' book contains a facsimile of the Handel "Arianna" Minuet, contained in the score book of the "Christie's" Handel/Clay Organ Clock.[5] The study of the unornamented score (which the organ embellishes) provides some demonstration of the ornamental liberties of mechanical music. (It has been documented that Handel actually oversaw the "pinning" of this cylinder.)

In the "Arianna" Minuet (which Haspels notes is a particularly vivid illustration of Handel's richness of embellishment) one finds the aforementioned interchangeability of lower and upper-note trills and multiple mordents (Example 133).

One has to question the rhythmic fussiness of Dirksen's realizations in measure 24 however. Here, in his zeal to fit every note into a prescribed rhythmic pattern, Dirksen changes the anchor of the trill from "E" back to "F" which probably could have been rewritten more simply (Example 134).

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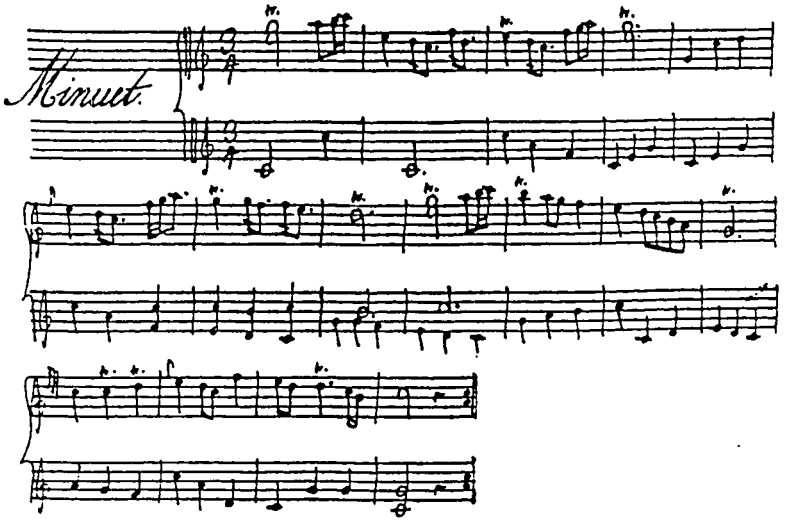
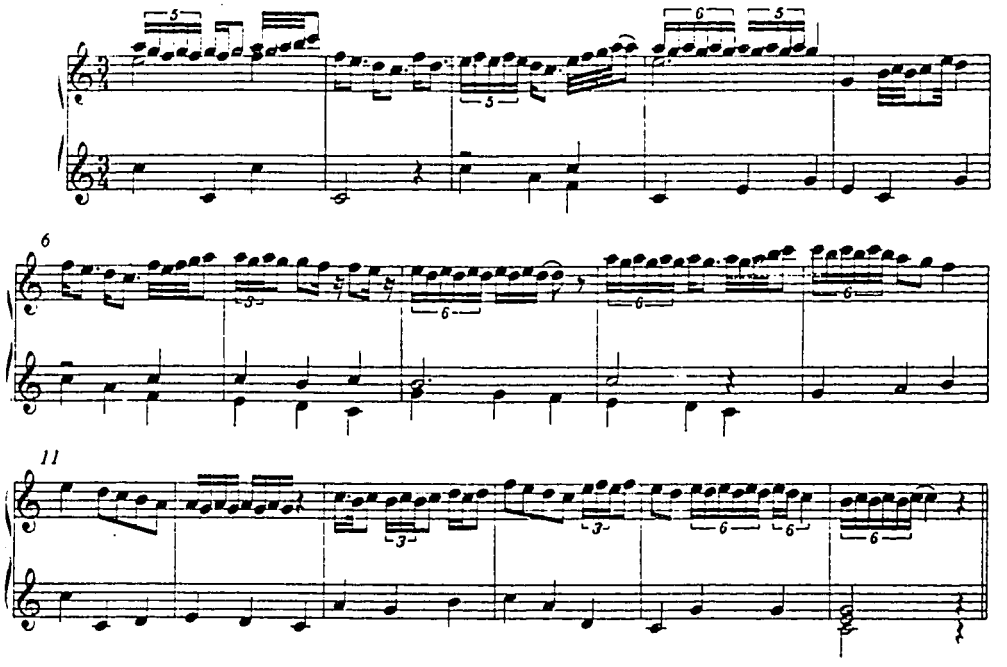
[5]Haspels, Automatic, p. 184.

Example 133a: Handel, "Windsor Castle," "Arianna" Minuet, mm. 1-16
b: realization by Pieter Dirksen

a

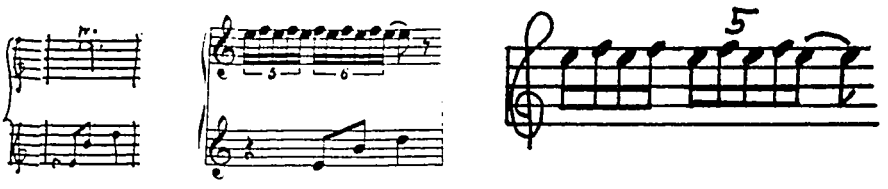


b



Example 134a: Handel, "Arianna" Minuet, m. 24
b: realization by Dirksen
c: realization by author

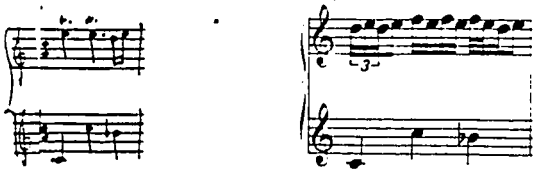
a b c



One also finds *lower note* trills which revert back to upper-note trills:

Example 135a: Handel, "Arianna" Minuet, m. 17
b: realization by Dirksen

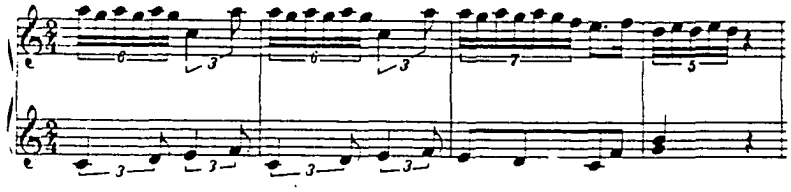
a b



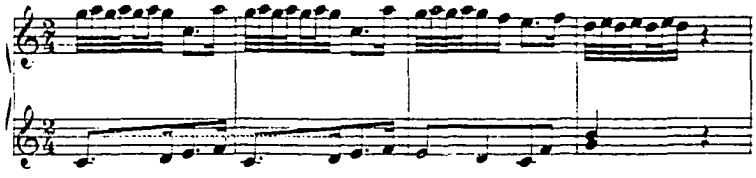
Most interesting is the duplication of pieces on the "Christie's" and "Windsor Castle" cylinders and particularly the arrangement of the "Ariadne" piece (from an unidentified source) in both collections. On the "Christie's" cylinder the trills consist almost entirely of upper-note trills while on the "Windsor Castle" cylinder main-note trills are the norm (Example 136).

Example 136a: "Christie's," "Ariadne," mm. 1-4
b: "Windsor Castle," mm. 1-4

a



b



All of these examples seem to suggest what Neumann documents in his book:

> A performer who is worried about the right way of rendering Handel's trills (or any of his other ornaments) can take comfort from the thought that Handel in his grand manner most likely did not greatly care one way or the other, provided the result was musical and not pedantic, affected or otherwise in bad taste. Had he greatly cared he would have been more specific.[6]

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[6]Neumann, Ornamentation, p. 358.