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BACH'S TEMPO PRACTICES, THE TEMPO THEORIES OF HIS TIME – AND OURS

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The question of Baroque tempi has been a subject of contention since the beginnings of historically aware performance of early music in the early years of the 20th century and up to the close of the century.[1] Still too often opinions and hypotheses about this most capricious and fluid of musical parameters are presented in the guise of absolute truths or revelations.

It is an accepted dogma that the tempo of mensural music was objective, that is, transmitted inseparably with the musical text and notation. But since the 17th century, tempo has been regarded more as the performer's domain. Prescriptions are offered for how the proper tempo should be indicated by composers or understood by performers. The balance between "objective tempo" and "performer's tempo" in the music of J.S. Bach depends primarily on how we regard him: as "Bach the Progressive," who anticipated future developments, or as "Bach the Retrospective," whose late work culminated in a renewed flowering of *stile antico*.

Two central 18th-century tempo theories most relevant to Bach's music are those of Joachim Quantz and Johann Philipp Kirnberger, both active at the court of Frederick the Great. Quantz was chamber composer and flute teacher to the king and author of the famous flute treatise (1752);[2] Kirnberger, a former pupil of J.S. Bach, taught composition to the king's sister. He remained faithful to Bach's art all his life, and was regarded by his contemporaries as a worthy guardian of Bach's legacy, primarily due to his treatise on composition (1776–9).[3] The two were personally acquainted with each other, as well as with Bach. As they belonged to the same musical milieu, one might expect their treatises, though published 25 years apart and with different goals, to describe various aspects of the same musical practice and tradition.

But their views on tempo are diametrically opposed. The difference is to be traced back to two 17th-18th-century French schools: one, which I term *"les chronométristes,"* used a pendulum for determining absolute tempo. (L'Affilard 1694, Loulié 1696, Pajot 1735, Choquel 1759). The other group, *"les mouvementistes,"* doubted altogether the worth of fixing speed mechanically as a musically desirable criterion of tempo. The clearest voice of the latter faction is Jean Rousseau, author of a treatise on singing (1678).[4] Ninety years later, Jean-Jacques Rousseau expressed similar ideas in his *Dictionnaire*. For both Rousseaus, the real feeling of tempo is inherent not in the measured speed (*mesure*), but in *mouvement*, reflecting the affect and spirit of the words and the music. Jean Rousseau influenced German tempo theory through Mattheson, who quoted Rousseau's passage on tempo in his *vollkommener Kapellmeister* (1739).

The difference between the two German masters may be summed up by labelling Quantz a *chronométriste* and Kirnberger a *mouvementiste*. "Motion" (*Bewegung*) reflects for Kirnberger the affective character of the piece, whereas Quantz proposes to measure tempo objectively with the aid of the pulse instead of the French pendulum (which he knew of, but never tried in practice).

Quantz divides tempo into four main classes: very fast, not so fast, not very slow, and very slow, – each one twice as fast as the next. If we include here Quantz's *allabreve* table, the tempo range of variation becomes **16:1**, exceeding that of Beethoven's metronome marks – rather surprising for our conventional notions of Baroque tempi. The extreme range and apparent rigidity of Quantz's tables were already criticized in his lifetime; but it should be understood that, being a pragmatic musician, he endeavored to make his system as simple as possible, trying to spare his pupils complicated divisions (two pulsebeats into three, etc.). Quantz uses binary tempo divisions throughout, but admits of many exceptions in practice, according to affect, personal temperament, genre, place of performance, and acoustical conditions. The tempo indications of Quantz's own music, abounding in nuances, show that he himself never observed his own precepts too strictly. Terms which are formally not recognized in his own tempo tables (simple *Adagio, Moderato, A tempo giusto,* as well as many nuances) found a place in his own tempo indications.

According to Quantz, our knowledge of the tempo of a written piece depends totally on the tempo word (*Adagio, Andante, Allegro* etc.). On the other hand, Kirnberger's point of departure is *Tempo giusto*, while tempo words are secondary in importance. *Tempo giusto* is a standard or "normal" tempo, applied to pieces without any tempo heading. Tempo words modify the *Tempo giusto*, rendering it lighter and faster (or heavier and slower) than normal; but Kirnberger does not specify how much they can practically affect the *Tempo giusto*.

Compared with Quantz, Kirnberger's views seem to limit the actual tempo range; however, his *Tempo giusto* is a flexible, self-sufficient entity, yielding a whole gamut of tempi which can serve as a basis for an entire repertoire. Did Kirnberger stress this concept as an *hommage* to the music of Bach, which is characterized by the scarcity of tempo words?

Kirnberger also tells us how *Tempo giusto* is affected by different time signatures and predominant note-values. One has to look at the *denominator* of the time signature: the smaller it is, the slower and heavier is the motion of the piece in question. Thus $\frac{3}{2}$ pieces are generally slower than ones in $\frac{3}{4}$, and these in turn slower than $\frac{3}{8}$. This is a traditional distinction, known since Frescobaldi and Saint-Lambert.[5] However, within the same time signature, the tempo primarily depends on the predominant fast note-values: pieces abounding in small values are naturally slower. Thus a $\frac{3}{4}$ sarabande, with many 16th notes, will be naturally slower than a $\frac{3}{4}$ minuet, with eighth notes as fastest values. Kirnberger adds, however, that a $\frac{3}{2}$ *Tempo giusto* is like a $\frac{3}{4}$ one with the addition of a *Largo* or *Adagio*. Here we see a confusion between *Tempo giusto* and tempo words.

To Kirnberger's instructions one should add the following comments: **(a)** pieces in $\frac{3}{2}$ or ¢ are often written *allabreve*, containing more large values than $\frac{3}{4}$ or **c** pieces, respectively. Thus the *allabreve* sign doubles their speed, but the small denominator [**2**] is supposed to make them slower than **c** **(b)** Conversely, the predominance of small note values, such as 32nd-notes, may affect tempo equivocally: It may denote slow tempo, as Kirnberger says, but it often indicates bravura speeds. This phenomenon is explained by Friedrich Wilhelm Marpurg, another author of the Bach circle. In his *Anleitung zur Musik und zur Singekunst* (1763), Marpurg states similar rules to those of Kirnberger; but in a somewhat later work he adds the following remark:

> "But yet a contrary phenomenon is often observed. The reason for this is the property of every musical piece, according to which a piece where only two different note-values occur should be performed faster than one with a variety of rhythmic values."[6]

In other words, *rhythmic complexity* is considered as a slowing factor. Thus the most rhythmically complex of the *Goldberg Variations*, e.g., the *Aria* or Var. 25 (G minor) is the also the

slowest one, whereas Bach's fastest pieces (e.g., the B♭ major Prelude, *WTC* I) are characterized by *moto perpetuo*-like rhythmic uniformity.

The role of tempo words, or their relationship to *Tempo giusto*, both in Kirnberger's theory and Bach's practice, is ambiguous. Kirnberger says that tempo words modify *Tempo giusto*; but since *Tempo giusto* itself changes with the general character, time signature, and predominant note values of a piece, it is not always clear when a tempo word should mark a deviation from *Tempo giusto* or when it merely confirms it. Bach apparently applied both policies on different occasions.

One way of putting the role of tempo words to a simple test is to survey all Bach's tempo indications. These are perhaps too scant an evidence of Bach's real intentions, but at least they can show us what he did *not* intend. The separate "numbers" in Bach's extant works roughly amount to 3600; 2250 vocal (with 205 tempo words) and ca. 1350 instrumental (290 tempo words). The far greater number of tempo words in the instrumental pieces reflects the Italian concerto or sonata format, with a tempo heading for almost every movement. Bach's tempo words follow several traditions, according to the genre of the piece. He usually applies Italian terms, but in some suites and other French-style pieces he uses French words. At any rate, he generally prefers the old tradition of not using them at all.

In the vocal works we have **80** slow expressions (*Adagio, Grave, Largo*, etc.), **82** fast ones (*Vivace, Allegro, Presto*), **30** *Andante* and only **one** *Moderato*.[7]

The correlation of the various time signatures with tempo indications shows some preference of fast tempi for $\frac{2}{4}$ and $\frac{3}{8}$ meters, and of slow ones for $\frac{3}{2}$. Only once is ¢ combined with a restrained tempo (*Andante*), but mostly with *Allabreve* or fast motion. Other meters, such as $\frac{3}{4}$, or $\frac{12}{8}$, and particularly **c**, are neutral, i.e., evenly distributed among all tempo classes. This means that little of the traditional use of time signatures as tempo indicators has survived in Bach's practice, Kirnberger's teachings notwithstanding. In certain revised versions of his own works (e.g., *Kunst der Fuge*), Bach changed the meter and/or note-values, yet without any apparent intention of changing performing tempo.

Did Kirnberger's *Tempo giusto* theory originate in the personal teachings of Bach? This seems unlikely: Bach only rarely used the expression *tempo giusto*, and then only in the sense of *a tempo*, to mark a return to measured tempo after a recitative. A deeper reason is that many of the unmarked pieces cannot have been intended for any "normal" tempo; decidedly fast (or slow) tempi are often implied, without being written out. One example is the first Chorus of *BWV* 12, *Weinen, Klagen, Sorgen, Zagen* from 1714, with the heading *Lente*, transformed in the late 1740s into the *Crucifixus* of the B minor Mass, now without a tempo mark. It is inconceivable that Bach would have such a highly intense piece, whose affective content is anything but "neutral," performed in any kind of a "normal" tempo. The *lente* indication may have been omitted because it was considered obvious.[8] A similar case involving a fast piece is the Prelude to the E major *Violin Partita*, *BWV* 1006, which bears no tempo indication. The 1720 original version was transformed in 1731 into an orchestral sinfonia to the Town Council election cantata "*Wir danken dir, Gott*" *BWV* 29, now with the heading *Presto*. It is likewise hard to suppose any "normal" or moderate tempo for this bravura piece, either in an orchestral or a solo violin version.

The comprehensive list of tempo words enables us to classify tempo words by their respective degrees: for example, *Adagio* seems slower in intention than *Largo* or *Grave*, as we find *Adagio assai*and *adagissimo* but no *Largo assai* or *gravissimo*. However, one should not ascribe too great a significance to fine distinctions between these terms. For example, the Tenor Aria "*Bäche von gesalznen Zähren*" (*BWV* 21/5) opens with a *Largo*, followed by a section *Un poco allegro*; but the D.C. retransition is marked *Adagio*. Thus both terms must have meant for Bach more or less the same thing.

Summing up, tempo words in Bach's music

appear to have usurped the role of time signatures as tempo indicators; but their scarcity alone, and nearly random use, are perplexing, eschewing any fixed method. This lack of system is the most *systematic* trait of Bach's tempo marks. They fit neither Quantz's nor Kirnberger's descriptions, nor are they accounted for by any recent models. Since we justly regard Bach's music as emblematic of reason and intellectual lucidity, it seems from his random use of performance-marks that he did not see them as pertaining to the primary message of his art, and that he may have conceded a certain liberty to the performer.

Some musicians of the first half of the 20th century thought it proper to play Bach as slowly as possible. Albert Schweitzer coined a maxim: "The better any one plays Bach, the more slowly he can take the music; the worse he plays him, the faster he must take it."[9] Another statement of his:

> "Tempo marks, where they exist, should not be interpreted in a **modern** sense. Bach's *adagio, grave*, and *lento* are not so slow as ours, nor his *presto* so fast [...] The circle of possible tempi in his music is really one of varied nuances on either side of a *moderato*."[10]

Since Schweitzer's book first appeared in 1905, one might think that "modern" here referred to Wagner, or even to younger turn-of-the-century composers. But Schweitzer in fact repeats here a remark by Griepenkerl, the first editor of Bach's complete organ works (1844). Thus the epithet "modern" probably applies to the tempi of Czerny, Mendelssohn, or even Beethoven.

The idea that the tempo of "old music" was less variable, or its fast pieces slower than modern ones, is much older than Schweitzer. One may trace it back to a famous remark by Quantz:

> "In bygone days everything was played [almost] twice as slowly as in our time: what was called *allegro assai, presto*, etc., was written the same way but was played not faster than one writes and plays an *allegretto* nowadays. [...] The French composers of our time have generally kept this type of medium speed for vivacious pieces even now."[11]

Fifty years later, Türk (1802) said the same thing about Quantz's generation.[12]

Quantz's remark raises two main questions: (1) to what "bygone days" did he allude?(2) Was his observation on the tempo of French music correct at all? Additional 18th-century testimony explains the social backgrounds of the change intempo habits. For Mattheson (1713), who speaks ironically of the effeminate "Frenchified" manners of his age, the change has to be sought in education:

> "The public taste in music has become more sound, that slow and sad pieces are preferred to fast and merry ones [...] Thus I believe that if one could stay out of the world for two years, without being informed by correspondence or by books, when one came back, one could hardly tell if he be a boy or a girl." [13]

Stretching our imagination a bit, the scene described by Mattheson reminds us of a Germanized version of Molière's *Bourgeois gentilhomme*, taking private lessons to become *zivilisiert*.

But some French evidence seems to contradict Quantz's statement, namely that France was the stronghold of slow-to-moderate tempi. Older people, in 1719, complained that Lully's operas lack the expression and fire they had in his lifetime, as they were now performed too slowly.[14] Then we have the surprisingly fast early 18th-century French metronomic data, presenting an altogether different picture than the description of French music by Quantz and Mattheson. Rediscovered by Eugène Borrel in 1934, these chronometric indications found their way into modern practice as late as the 1960s or 1970s, when a preference for fast tempi, even the rejection of verifiably slow tempi, became the *bon*

ton of "up-to-date authenticity." There followed a wave of reaction. In 1974 and 1980, new explanations for the French metronomic data were offered by E. Schwandt and W. R. Talsma.[15] Accordingly, L'Affilard and the other *Chronométristes* marked the length and frequency of their pendulums the same way as we now understand it, but for each oscillation they counted *two* motions, forward and backward. So their tempi should be twice as slow than what we have thought up to now. Thus the respectability of Baroque tempo was saved. The principle of counting "tick-tock,", instead of a single "tick," was extended by Talsma to include later composers until well after Beethoven, but he applied it only to fast tempi (*allegretto* or faster), while slower tempi should be read in the ordinary way. With this, the dispute did not come to an end: On the contrary, the other party became more vocal. Talsma's theory was sharply attacked, particularly in circles of the Basel *Schola Cantorum*, culminating with Klaus Miehling's polemical (and one-sided) book on Baroque tempo (1993), totally devoted to defending the fast trend.[16]

However, it is not my intention to dwell on metronomic details, but to focus on a more general problem: To what extent, if at all, are we able to "read" the tempo from the music alone, in the absence of any incontestably clear indications about the performance practices of the time? Many know the experience of looking at a score and getting an immediate, unerring feeling what the tempo of the piece should be. This happens often with the music of Bach, perhaps because we have no other clue other than the plain notation to rely on. What about other Baroque composers?

One is tempted to conduct a thought experiment, letting the reader infer the approximate tempo indications of the following ten short pieces, all of the same genre, and by the same composer, on the basis of their incipits (examples 1–10).

Example 1

Example 2

Example 3

Example 4

Example 5

Example 6

Example 7

Example 8

Example 9

Example 10

Perhaps the most striking fact about the original tempo indications of these examples[17] is the complete lack of correspondence of their genre, *Allemanda*, as well as the predominant note values, to the tempo indications. Thus the difficulty of the task seems to be objectively inherent in the music. Rhythmic texture and genre are important criteria of determining tempo, but apparently they, too, may be misleading. The art of reading the "right" tempo from the music itself, as advocated by 18th-century authors, was part of the definition of *Tempo giusto*, but this art seems impossible to achieve without an "external" support beyond the written score. Trying to translate timeless graphic notation into durations is like inferring the dimensions of an unknown terrain from a map of which we do not know the scale. In this respect, the old authors spoke from quite a different perspective than nowadays, as they had at their disposal the scale to the secret map, a code provided by long practical experience and based on oral (and aural) traditions.

Even the idea that there is *one* right tempo for every piece may be taken with some skepticism. Although some 17th- and 18th-century sources speak of the composer as the last authority on the tempo of his work, it seems that nobody then imagined the present situation, namely that a piece of music would be performed hundreds of years after the death of its creator, repeated thousands of times in live performances, and even more often in playbacks of recordings. Composers have a clear idea of their desired tempo, but even an author's tempo idea may be changeable, or fairly tolerant, comprising its own

degrees of freedom. This particularly concerns Baroque styles, where essential details of performance, such as ornamentation and thoroughbass realization, are often left in the care of the performer. It would be meaningless to attempt to fix the tempo, for example, of a freely ornamented Italianate *Adagio* without first establishing the density of ornamentation, which finally depends on the performer alone.

The difficulty of giving precise rules for 17th- and 18th-century tempo is twofold. Objective external data (metronomic or other) are few, their scarcity alone making them unreliable. "Musical" criteria, or internal evidence of the score, are an even less secure ground; witness the fast changing notions in the last few decades about the nature of tempo of early music. As we have seen in the above examples, it is not clear to what extent musical types and textures contain in themselves their own unambiguous tempo implications.

A whole, still undying, line of literature is characterized by a common belief in secret codes hidden in Bach's music, just waiting to be deciphered and ranging from encoded theological messages to detailed (but unwritten) precepts of performance. One still encounters declarations about the so-called "Old Tradition" of performance, "almost in the nature of a code." forming "a tightly knit system."[18] The belief in the role of time signatures and note values in determining the tempo and motion of a composition is indeed in accordance with the precepts of old theorists. But the "lost tradition" was a living tradition, which by definition was neither unified nor "tightly knit," but full of contradictions, ambiguities and inconsistencies, and local, national, and individual differences. A vital part of it was communicated not verbally but by pupil imitating teacher. These reasons suffice, unfortunately, to regard this tradition as irretrievably lost. Its rediscovery by present-day or future research, or its preservation in some as yet unearthed 18th-century source, seems equally improbable.

Notes

1 Arnold Dolmetsch, *The Interpretation of the Music of the XVIIth and XVIIIth centuries*, London: Novello, 1915. Ephraim Segerman, "A re-examination of the evidence on absolute tempo before 1700," *Early Music* 24/2 (May, 1996): 227–48, 24/4 (November, 1996): 681–90. See also notes 11, 12 below.

2 Johann Joachim Quantz, *Versuch einer Anweisung die Flöte traversiere zu spielen*, Berlin, Breslau: 1752; 3/1789; R(1789 ed.)/ Kassel: Bärenreiter, 1953.

3 Johann Philipp Kirnberger, *Die Kunst des reinen Satzes in der Musik*, Berlin & Königsberg: 1776–9, R/Hildesheim: G. Olms, 1968. English version, *The Art of Strict Musical Composition*, tr. David Beach & Jürgen Thym, (Vol I + Vol. II Part I), New Haven: Yale University Press, 1982.

4 Jean Rousseau, *Méthode claire, certaine et facile, pour apprendre a chanter la musique*, Paris: 1678; 5/ Amsterdam: Pierre Mortier,1710, R/Genève: Minkoff, 1976.

5 Frescobaldi, *Il primo libro di capricci*, 1624; Monsieur de Saint-Lambert, *Les principes du clavecin*, Paris: Ballard, 1702; R/Geneva: Minkoff, 1972.

6 Friedrich Wilhelm Marpurg, *Anleitung zum Clavierspielen* (Berlin, 1765) p. 17.

7 The full tempo heading, however, is "Moderato. Largo" (in *BWV* 210/2)

8 Many other inconsistent tempo indications are revealed in the B-minor Mass itself, e.g., in the various parts copied for Dresden (1733). See George B. Stauffer, *Bach: The Mass in B Minor*, New York: Schirmer Books, 1997, p. 231–41.

9 Albert Schweitzer, *J. S. Bach*, tr. by Ernest Newman, 2\London: Black, 1923, Vol I, p. 311.

10 Schweitzer, ibid., p. 381.

11 Quantz, *Versuch*, p. 263, tr. by Erwin Bodky.

12 Daniel Gottlob Türk, *Klavierschule*, Leipzig & Halle: 2nd Ed., 1802, p. 106: "Bey einem vor fünfzig und mehreren Jahren komponirten *Allegro* wird gemeiniglich ein weit gemäßigteres Tempo vorausgesetzt, als bey neuern Tonstücken mit der nämlichen Ueberschrift."

13 Johann Mattheson, *Das Neu-eröffnete Orchestre*, Hamburg: 1713. R/ Hildesheim: Olms, 1993, p. 80.

14 Jean-Baptiste Dubos, *Réflexions critiques sur la poésie et sur la peinture* (1719 or 1732), quoted in E. Borrel, *L'Interpretation de la musique francaise*, Paris: Alcan, 1934; R/New York: AMS Press, 1978, p. 173.

15 Erich Schwandt, "L'Affilard on the French Court Dances" *MQ* 1974, 389–400; Willem R. Talsma, *Wiedergeburt der Klassiker*, Band 1: *Anleitung zur Entmechanisierung der Musik*, Innsbruck: Wort und Welt, 1980.

16 Klaus Miehling, *Das Tempo in der Musik von Barock und Vorklassik: Die Antwort der Quellen auf ein umstrittenes Thema*, Wilhelmshaven: F. Noetzel, 1993.

17 All examples are from Corelli's Trio-sonatas: **1**. Op. 2/8, Preludio, *Adagio*; **2**. Op. 4/11, Allemanda, *Allegro*; **3**. Op. 4/10, Allemanda, *Presto*; **4**. Op. 4/6, Allemanda, *Allegro*; **5**. Op. 2/8, Allemanda, *Largo*; **6**. Op. 2/10, Allemanda, *Allegro*; **7**. Op. 2/2, Allemanda, *Adagio*; **8**. Op. 4/2, Allemanda, *Allegro*; **9**. Op. 2/1, Allemanda, *Largo*; **10**. Op. 2/4, Allemanda, *Presto*.

18 Fritz Rothschild, *The Lost Tradition in Music: Rhythm and Tempo in Bach's Time*, New York: Oxford University Press, 1953, 2f; Frederick Dorian, *The History of Music in Performance*, New York: Norton, 1942, p. 143; Rolf Mäser, *Bach und die drei Temporätsel*, Bern: Peter Lang, 2000.