

## Bach's *Goldberg Variations*: Lullaby for an Insomniac or a Virtuoso's Dream?

Bach published his *Clavier Übung, Part IV* in 1741. Today, it is better known as the *Goldberg Variations*, a name derived from an account published in 1802 by Johann Nikolaus Forkel,

All variations should be modeled after this work [the *Goldberg Variations*], although, for obvious reasons, no one has yet done so. We have them thanks to Count Kaiserling, formerly Russian Ambassador at the Saxon Electoral Court, who often stayed in Leipzig and brought Goldberg with him to be taught music by Bach. The Count was often ill and had sleepless nights. At such times Goldberg, who lived in the Ambassador's house, had to spend the night in an adjoining room, to be ready to play something for him during his sleeplessness. The Count one day remarked to Bach that he would like to have some keyboard pieces for his Goldberg that were so gentle and somewhat cheerful in character that they would cheer him up a little during his sleepless nights. Bach believed he could best fulfill this wish through variations, which he had previously considered a thankless task because of the consistently unchanging basic harmony. But just as all his works were already models of art by this time, these variations also became so under his hand. Moreover, he only produced a single model of this kind.<sup>1</sup> Afterwards, the Count referred to them simply as his variations. He could not get enough of listening to them, and for a long time, during sleepless nights, he would say: Dear Goldberg, please play me one of my variations. Bach was, perhaps, never so well rewarded for any work as for this one. The Count gave him a golden goblet filled with 100 Louis d'ors. But their artistic value would not have been paid if the gift had been a thousand times greater.<sup>2</sup>

The accuracy of this account has been questioned,<sup>3</sup> even though Forkel's information comes in part from Bach's two eldest sons, Wilhelm Friedemann Bach (1710–1784) and Carl Philip Emanuel Bach (1714–1788). The main arguments that have been raised against Forkel's account are,

1. The title page of the first edition lacks a dedication, making it seem unlikely that there was a commission;
2. No golden goblet was listed in Bach's estate;
3. Johann Gottlieb Goldberg (1727–1756), Bach's student, was not mature enough to play such virtuosic music in 1741 when the work was published;
4. The music is so fast that it would not be appropriate to play for someone having trouble sleeping.

---

1 It appears that Forkel was not familiar with the very early work by Bach titled *Aria variata* (BWV 989).

2 Johann Nikolaus Forkel, "Ueber Johann Sebastian Bachs Leben, Kunst und Kuntswerke" (1802), in *Bach-Dokumente*, Band VII (Bärenreiter, Kassel, 2008), 64–65. Translation by the author.

3 For example, see Christoph Wolff, *Bach: Essays on His Life and Music*. (Harvard University Press, London, 1991), 212–213.

The first three arguments hold little weight. Bach may have written the music as a gift for the Count, rather than in fulfillment of a commission. Bach might have sold the golden goblet, or given it away, before he died. And Goldberg was a child prodigy, and later in his brief life he was known as a great virtuoso.<sup>4</sup> Those claiming that Goldberg was too young haven't studied the early careers of other prodigies, such as Mozart, Beethoven, and Mendelssohn. The final argument, however, deserves more attention.

We have previously published a description of a proportional method derived from a study of the *Well-Tempered Clavier, Book 2*.<sup>5</sup> There are three rules in this method.

1. The speed of the shortest note value of a piece is proportional to one of two standard beats, called the common tactus (72 BPM) and the accelerated tactus (81 BPM). The accelerated tactus may be taken as 80 BPM when using a metronome.
2. Where the shortest note is the eighth, there are three eighth notes per tactus (ornamental notes, such as the two thirty-second notes in measure 19 of variation 5, are excluded when determining the shortest note). Where the shortest note is the sixteenth, there are four sixteenth notes per tactus. Where the shortest note is the thirty-second, there are six thirty-second notes per tactus. Where the shortest note is the sixty-fourth, there are eight sixty-fourth notes per tactus.
3. All of Bach's rarely used Italian performance markings describe his intended musical effect. Many of these markings, but not all of them, also alter the number of shortest notes per tactus. When they do, a slow marking such as *Adagio* indicates to use the next lower number of shortest notes per tactus, while a fast marking such as *Allegro* indicates to use the next higher number.

To see if this method might shed light on the accuracy of Forkel's account, we applied its rules to the 31 movements of the *Goldberg Variations*; the resulting proportional tempos are shown in table 1, in the columns headed "Proportional." We then evaluated whether these tempos support or argue against Forkel's account. In particular, would the variations answer to the description "gentle and somewhat cheerful in character" or would they be considered virtuosic?

When performed at the proportional tempos, virtuosity is much less prominent than is typical in modern performances. The proportional tempos for twenty-three of the thirty variations are slower than the average of the tempos chosen by modern performers (table 1). The average tempos of modern performances of these twenty-three variations range from 5% faster than the proportional tempo (first section of Variation 16) to 86% faster (Variation 5). Only the Aria and seven of the variations are on average played more slowly than their proportional tempo.

All of the variations are in the key of G, twenty-seven in major and three in minor. All are in song form (where the two halves of the movement are each repeated). As Forkel remarked, the variation form itself leads to a repetitive harmonic effect. Further, Forkel

4 According to Forkel, Goldberg "was a very finished player." Forkel, *Johann Sebastian Bach*, 101.

5 Leslie Kenney, *The Tempo Implications of Bach's Notation*. (Saunderstown, RI, WTB Press, 2025).

**Table 1.** For each variation from the *Goldberg Variations*, the proportional tempo, the average of tempos from a selection of recordings by prominent performers, and the variance between the two



















Var. #	Tempo (BPM)			Var. #	Tempo (BPM)		
	Proportional	Modern Performers	Variance		Proportional	Modern Performers	Variance
Aria	54	48	-11%	16a	60	63	5%
1	72	98	36%	16b	54	70	30%
2	72	81	13%	17	80	103	29%
3	48	60	25%	18	60	90	50%
4	48	61	27%	19	54	46	-15%
5	72	134	86%	20	80	106	33%
6	48	46	-4%	21	54	43	-20%
7	48	69	44%	22	80	89	11%
8	72	105	46%	23	60	93	55%
9	72	71	-1%	24	54	75	39%
10	60	84	40%	25	40	23	-43%
11	108	132	22%	26	80	94	18%
12	60	77	28%	27	54	72	33%
13	60	43	-28%	28	60	83	38%
14	60	93	55%	29	80	88	10%
15	40	28	-30%	30	72	77	7%

Note: The performers whose recordings were considered while calculating these averages are Claudio Arrau, Daniel Barenboim, Mia Chung, Maggie Cole, Valdimir Feltsman, Glenn Gould (1956 & 1981), Angela Hewitt, Wilhelm Kempff, Igor Kipnis, Ralph Kirkpatrick, Evgeni Koriolov, Wanda Landowska, Gustav Leonhardt, Konstatine Lifschitz, Tatiana Nikolayeva, Murray Perahia, Trevor Pinnock, Karl Richter, Andras Schiff, Rudolph Serkin, and Rosalyn Tureck.

implies that Goldberg played for the Count from an adjoining room; if Goldberg did play from an adjoining room, the sound would be more muted than if he had played in the same room. With a more muted sound, the repetitive harmony would indeed be “gentle and somewhat cheerful,” supporting Forkel’s account.

Repetition is even more marked in the first nine variations (table 2, following page), because all of them have the same shortest note (the sixteenth) and the same tactus speed (common). According to the proportional method, these sixteenth notes all move at the same speed (4 sixteenth notes per beat, at 72 BPM). The result, nine consecutive movements in the same key, with a similar harmonic structure, and using the same speed of shortest note, is unique in Bach’s works. In all of his other keyboard music, Bach strives for variety of tempo and harmonic structure. When played at the slower proportional tempos, with the sixteenth notes all moving at one speed, these nine variations are truly hypnotic.

**TABLE 2** The first nine variations, with the information taken from the notation and the resulting proportional tempo

Var. #	Time Signature	Shortest Note	Shortest Notes per Tactus	Tactus Speed	Performance Marking	Beat Note	Proportional Tempo (BPM)
1	$\frac{3}{4}$		4	common	[none]		= 72
2	$\frac{2}{4}$		4	common	[none]		= 72
3	$\frac{12}{8}$		4	common	[none]		= 48
4	$\frac{3}{8}$		4	common	[none]		= 48
5	$\frac{3}{4}$		4	common	[none]		= 72
6	$\frac{3}{8}$		4	common	[none]		= 48
7	$\frac{6}{8}$		4	common	[none]		= 48
8	$\frac{3}{4}$		4	common	[none]		= 72
9	<b>c</b>		4	common	[none]		= 72

While the first nine variations are similar in complexity to the two- and three-part inventions, to this author at least, they are more challenging to play. For this reason, they might be appropriate pieces for an intermediate, but very talented, young student to learn. Eight of the later variations are virtuosic (table 1) and are clearly not designed to be soporific (variations 11, 14, 17, 20, 23, 26, 28, & 29). For example, when Variation 20 is played at the proportional tempo of 80 BPM, the triplets are exciting rather than soothing, and when Variation 28 is played at 60 BPM, the simultaneous trills are challenging. However, given Forkel’s account, it is not surprising that some variations are virtuosic, because such virtuosity would surely “cheer [Kaiserling] up a little during his sleepless nights.” In addition, Bach’s self-interest would lead him to include movements that would show off Goldberg’s remarkable talents, so that Goldberg might use them for future performances.

In summary, the proportional method indicates that there does not appear to be a tempo-related reason to doubt Forkel’s account. It also indicates that the answer to the question, “are the *Goldberg Variations* a lullaby for an insomniac or a virtuoso’s dream,” is “both.”