

# Fugue No. 3

C-Sharp Major

*Well-Tempered Clavier Book I*

Johann Sebastian Bach

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**Subject:** Fugue No. 3, *Well-Tempered Clavier*, Book I

This fugue is one of the most playful things in all of music. Its delight can be found in its:

- jolly subject
- galloping countersubject
- sequential engines
- well-tempered scale
- re-exposition

## **Jolly Subject**

I cannot imagine a happier subject than that of this fugue. I think that I know *why* it is happy, but we'll save that for later. For now let's consider *how* the subject displays its cheer.

The merriment is found in the angularity of its melody. If the subject of the 1st fugue had three leaps, and the 2nd had five, this subject has nine! And not just any skip will do, they must be large.

We'll not even discuss the two daring leaps of a 7th. Of more interest, are the four rising 6ths, an interval that Johann Sebastian favored in his most expressive melodies. This interval will display like fireworks in the sequential episode of mm. 16-18.

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But angularity is sometimes an illusion. While the subject seems to employ only a handful of steps with leaping sixths, it is actually yodeling two stepwise melodies in parallel sixths. The low melody sol-fa-mi-re-do is accompanied by the high mi-re-do-ti-do.

The convergence of both melodies upon "do" imparts a strong sense of closure, and *that* is one reason why this subject is so happy. Like a two-for-one sale on Dove Bars at Safeway, it has finagled two melodies in the space of one. The technical term for this is a *compound melody*.

But if the subject implies two melodies, it also implies two chords in a most satisfying harmonic rhythm (the rate by which harmonies change).

Measure 1 outlines a tonic chord (I) that lasts for two beats. Measure 2 continues with a dominant chord (V) for two more. This is followed by another tonic/dominant/tonic cycle with one beat each. So in its second half the subject's harmonic rhythm is cut in half like this: I-I-V-V : I-V-I This creates momentum toward the dominant in the first half, but toward the tonic in the second.

The subject's harmonic rhythm is like the marble that, when tossed into a funnel, spins in ever tighter and faster spirals as it accelerates to the center. When it plops through the spout, this subject feels quite satisfied with itself. It is satisfied because it has met every expectation—melodic and harmonic—that it had set for itself. And that is why the subject is jolly.

### **Galloping Countersubject**

It may surprise you to learn that the countersubject (heard here in the high voice) undergoes more development than does the subject. For this reason we say that it is *generative*; it generates new ideas that Bach develops, especially, in his sequential episodes (those descending staircases to the right).

Given so much that the countersubject generates, it will pay us to learn it well. So put the subject out of your mind and concentrate upon that other melody, the one in the high voice. That's the countersubject.

Except for its one duration of a quarter note, the countersubject has only sixteenths. Its powerfully dissonant quarter note is the countersubject's most memorable sound. If you can hear that dissonance then you will recognize the countersubject every time.

Now I would like to draw your attention to the *gallop* in the countersubject. It is found in the second beat (high voice) of m. 4. Can you hear the two falling seconds and a rising third? There it is again in the third beat! Every sequence in this fugue gallops to the melodic inversion of that figure.

A melodic inversion reverses an interval's directions. So the countersubject is developed upside down in the fugue's sequences. Here it is heard as two *rising* seconds and a *falling* third.

Sometimes the galloping motive is heard in the low voice, other times in the high. But every sequential episode uses it--on nearly every beat! Click the timeline to hear the gallop in each sequential episode.

## Sequential Engines

In the last fugue we likened sequences to stairways. Here we'll liken them to engines. They are engines that propel the music from one key to the next.

Engines don't just happen, they are the products of design. The object of the design is to provide power. The power is generated in cycles that can repeat indefinitely so long as there is fuel. The fuel of a musical sequence is its pattern. If the pattern is repeatable at another pitch level then it has the potential to continue forever. Successive repetitions will eventually return the music to where it started. So sequences are cyclical.

Since the fugue's subject is not a pattern, it is not sequential. But when fragments of the subject are repeated in a pattern of cycling pitch levels then you have a sequence.

The sequence in m. 23 represents the case in point. Here the subject's head motive and middle (thorax?) are stated twice in a row. Notice that the subject's tail has been bobbed off. Bach has used the same technique in double counterpoint in mm. 35-41.

The engineer's job is to find the right motive to fuel the sequence. Not every pattern can do this, but it is important for it to be done. It is important because the subject needs to be heard in different keys and modes to avoid tedium.

Take a moment to click the timeline and hear the subject in its different keys. Notice how sequences bring the music to those various keys. Notice too that, whereas the subject is originally stated in the major mode, it twice receives development in minor: a#m in mm. 14-15, and e#m in mm. 19-20.

Once the sequential engine has been started it creates a momentum that wants to continue forever. Eventually it too must stop if not to become a bore. So the decision when to apply the brakes is important.

Bach normally brakes his sequences after two to three repetitions of the cycle. But in mm. 31-34 he allows the sequence to run for four cycles! The extraordinary length suggests that Bach was happy with what he had engineered.

Occasionally Johann Sebastian will run the engine for awhile, stop for a red light, play the subject once or twice while waiting, then step on the gas at the green, picking up the sequence where it left off.

Compare m. 9 (end of sequence No. 1) with m. 16 (beginning of sequence No. 2). Need I say more? They are quite alike! After allowing the sequence to run for three cycles (mm. 7-9) Bach has stopped at the red light. While waiting he has stated the subject and countersubject twice (mm. 10-11 and mm. 14-15). Given the green light he has resumed the sequence and continued it for three more cycles (mm. 16-18). Without brakes the sequence would have continued for five cycles like this concatenation of sequences 1 & 2.

## Well-Tempered Scale

Earlier we asked why this fugue is so jolly. The answer is because "Old Bach" himself must have been very happy on the day he wrote it. Let me explain.

*Clavier* is the German word for all keyboard instruments like the organ, harpsichord, clavichord, or the newly-invented fortepiano. The problem of tuning Claviers had puzzled musicians for hundreds of years. Should they be tuned by pure ratios to sound wonderful in some keys but horrid in others, or should they be tuned by *tempered* ratios (slightly out of tune) so as to be playable in all keys?

Bach was a champion of the latter solution. His *Well-Tempered Clavier* was written to show the feasibility of composition in *any* key. That is why each of the twenty-four major and minor keys receives two preludes and two fugues in his two-volume series.

In this fugue we come to the first key that would have sounded out-of-tune in the old-fashioned system. So I'll venture to guess that Herr Bach was feeling jolly because the well-tempered system allowed him to compose in C-Sharp Major, a key that would have been impractical before.

But there's another reason why the composer may have been happy. We know that he sometimes derived a devious pleasure in writing music that accomplished keyboardists might find too difficult to play.

Carl Philipp Emanuel relates the story about a trick played upon his father by their cousin, J. G. Walther. It seems that Johann Sebastian prided himself on being able to play anything at sight. This Walther took it upon himself to compose something that could not be played. Having left the composition surreptitiously on the parlor harpsichord, Walther invited Bach to his house. After exchanging pleasantries, the prankster excused himself momentarily. Soon the curious Bach began playing the composition, and sure enough, he faltered, whereupon laughter began to emanate from around the house. The story goes that Bach then tried playing it repeatedly, each time stopping at the same place, whereafter he denounced the work as "unplayable."

So I think that Bach may have felt devilishly jolly because he knew, though it would bedevil musicians to come, *this* fugue was indeed playable. But with its seven sharps and double sharps in related keys, Herr Bach probably thought, "I've stumped everybody now!"

One of the more difficult passages requires the performer to employ double sharps. In mm. 18-22 the music has modulated to e-sharp minor, a key that requires double sharps on D and F. Notice how nimbly David Korevaar has played it. He probably would also have been able to read that little tidbit that Walther left on his harpsichord.

I am often asked why double sharps or flats are used at all. Wouldn't it have been easier for Bach to have notated the e-sharp minor passage in f-minor? The latter has only four flats, whereas the former has seven sharps plus the two accidental double-sharps!

This fugue provides a convincing answer to that question. The e-sharp minor passage is brief, only four measures. To apply the seven naturals needed to cancel the sharps, plus the four flats, would have been more of a bother than two double-sharps. I'm afraid that it would have so cluttered the score that even Professor Korevaar might have been stumped.

## **Re-Exposition**

An exposition is a passage that states the subject in a tonic-dominant relationship in all voices. It is not unusual for a fugue to have another exposition. This would be called a *counterexposition* or, if a new subject, a *double exposition*.

It is rare however for the same subject to be repeated in the same voices and in the same order. This is called a *re-exposition*. In this fugue Bach has re-exposed his subject in mm. 42-47.

Re-expositions flirt more closely with potential tedium than Bach is ordinarily comfortable. That he is comfortable with it now is the final evidence that he was very pleased with this fugue.