On the Counterpoint in Bach's Inventions and Sinfonias (BWV 772-801)

(Based on a lecture, accompanying my performance of all the Inventions in June 2006. My recording of the inventions can be found in the youtube site: Gilead Bar-Elli plays at Home)

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Some Biographical Details

Johan Sebastian Bach was born in 31 March 1685 in Eisenach (Germany) to a family of musicians of many generations. He was the youngest of 5 children, was orphaned when still a young child, first of his mother, and then, after a year (1695) of his father – Johan Ambrosius – who was a violinist. The family was very poor and Bach began then travelling for studies and support. From very early he made his living mainly from singing and violin playing, whose basics he probably learned from his father. After his father's death he was taken to his brother (Johan Christoph), who was then 24, in Ohrdruf. Johan Christoph was an organist – student of Pachelbel – but not a composer. By the known circumstances of Bach's life, and by the testimony of his son C. P. Emanuel, Bach never had systematic teaching of music, and was virtually an autodidact, who taught himself music mainly by copying and studying others' works. Johan Christoph was extremely poor and Bach was forced, for economical reasons, to move with his brother Jacob to Lüneburg. There he studied at the Michaelisschule (Latin, theology, etc.), and according to some records was a very good student. He also sang in the choir. However, he was hot-spirited, often quarreled with other students, and once even took out a sword against a student that hit him. At Lüneburg he probably heard the organist J.A. Reinken, whom he highly regarded (he is said to had walked also to Hamburg to hear him). From 1703 Bach travelled between Lünebutg, Arrenstadt, Milhausen adn Weimar (1708). The duke of Weimar highly appreciated his organ playing, and paid him well. His earliest known works are from that travelling period. In 1708, after receiving a small heritage from a relative of his mother (nee Lämerhirt), Bach married a relative of his, Maria Barbara, at Milhausen. From Weimar Bach moved to Köthen, in defiance of the Duke's (Willhelm) orders, and was therefore arrested for a month (November 1717). At Köthen, in1717, Maria Barbara suddenly died, while Bach was away, and when he returned home it was after her burial. Among their seven children were Wilhelm Friedemann and Carl Philip Emanuel, both of whom, especially the latter, became famous composers. In December 1721 Bach married Anna Magdalena –a soprano singer –who was then 20 years old. They had 13 children, 6 of them reached maturity, two of which (Johan Christian among them) became also well-known composers.

The Inventions were written in Köthen. Their first version appeared in a booklet *Clavier Büchlein* for Wilhelm Friedemann in 1720, and their final version (with the 3-part sinfonias) in 1723, shortly before Bach moved to Leipzig in May.

Many consider the discovery and performance in 1829, by Mendelssohn, of St. *Matthew Passion* to be "Bach's renaissance", after a long time of neglect and forgetting. This perhaps is true regarding his celestial works and the general public. But among professional musician Bach was known and admired all the time – in particular, his works for the clavier: "After 1720, indeed, there was scarcely a good German musician anywhere who did not possess at least one work of J. S Bach". (A. Schweizer, *Bach*, Newman tr. vol. 1, 325). Johan Scheibe – a composer, theoretician and music critique, who is known for criticizing Bach's "archaic, too learned, complicated and difficult style" – wrote in 1737 that Bach and Handel are the most important German composers, and that Bach is the best clavier player (see *The Bach Reader*, ed. David and Mendel, 230). "Clavier" at the time includes the harpsichord, clavichord, and organ. But the inventions were written mainly for the clavichord (Schweizer, ibid.).

And yet, Bach was not a popular composer, particularly in his late years and the first decade after his death. But his reputation and influence among composers increased steadily, particularly among the greatest composers. According to one testimony Mozart, on hearing for the first time one of Bach's Motets (in the 80s) got literally ecstatic, and said: "at last we have something to learn from". He immediately requested to see all Bach's motets that were kept there, and studied them all, with the separate sheets of the voices spread before him. Mozart knew Bach's *Well Tempered Clavier* and transcribed some of the fugues to a string quartet in which he played the viola (ibid. last chapter).

Beethoven was known already at Bonn as "the player of the 48", i.e. the 48 preludes and fugues of Bach's *Well Tempered Clavier* and performed many of them when only 11 years old. Later, he performed many of them in concerts in Vienne. Neefe – Beethoven's teacher in his childhood – was known as a Bach-expert. Beethoven also knew Bach's Chromatic Fantasy and Fugue, and the B minor Mass (ibid. 361). C. Czerny, Beethoven's prime student, and a renown pianist and composer, wrote that the performing instructions in his edition of that work (WTC) follow those of Beethoven and the way he played them. Mendelssohn wrote in a letter to Zentler of 22 June 1830 that he used often to play Bach for Göthe – particularly from the WTC and the Inventions. These examples (and others) clearly testify of the high esteem and admiration of Bach among the greatest musicians, long before, and independently of the performance of the *Mathew Passion* in 1839. This

esteem and admiration grew and strengthened in the coming generations until today, when Bach is often entitled "the greatest composer ever".

The Inventions[1]

Like many of Bach's works for the clavier, the Inventions were composed at first for didactic reasons, particularly for the education of Bach's first son (from his first wife Maria Barbara) Wilhelm Friedemann. The *Clavier Büchlein* for W. Friedemann contains works from 1720-1726, and it is quite certain that at least the earlier of these where composed for his teaching – both of playing and of composing. W. Friedemann was born in 1710. Since 1723 he was a student in a boarding school (with sleep at home) at Leipzig where he probably got a good education. According to Forkel (1802) – Friedemann's student and Bach's first biographer – Bach began teaching Friedemann when he was 9 years old, the age Bach himself began being taught. Hence, it appears that Friedemann studied with Bach for several years. However, Bach clearly had wider educational and compositional purposes in composing these works. Friedemann was highly regarded as an organist and composer, but his reputation declined in his last 20 years, he became rather poor and was forced to sell some of his father's manuscripts.

In their final version the Inventions were written in 1723, after some of Bach's mature and well known works, like: *The Well Tempered Clavier* (1722), The English Suites (before 1720), The French Suites, the suites for violin, the Brandenburg Concertos for orchestra and many Cantatas. *The Johan Passion* was composed only few months later. In their version in Friedemann booklet they were called "*preambula* (preludes), and the 3-part sinfonias were called " *fantasiae* (fantasies), but in their final version, edited together with the 3-part fantasies in 1723, Bach called them *Inventiones*. They were not published in Bach's life (only the 6 Partitas and the Goldberg Variations were), but there are some good manuscripts, including Bach's personal copy. In his Preface Bach says that they were intended to teach not only how to invent a subject, but also what to do with it, and also how to play well *cantabile*, i.e. in a singing manner in few voices:

> "An honest guide, wherewith lovers of the clavier, and especially those anxious to learn, are shown a clear method not only how to learn to play neatly in two parts, but further to play correctly and well in three obbligato parts; and at the same time not only to acquire good *inventiones* [ideas] but to work them out well; but above all to attain a cantabile style of playing, and in addition to get a strong taste for composition."

[1] Some scholars believe that in writing the inventions Bach was influenced by the Italian priest and amateur composer F.A Bonporti (1672-1749), who wrote several pieces by that name. Bach even transcribed some of them to the clavier.

The order of their writing (probably both of the 2-part and the 3-part inventions is: C,d,e,F,G,a,b,B♭,A,g,f,E,E♭,D,c (a small letter indicates minor). These are all the keys except C#, F#, A♭; E♭ and B♭ don't have minor inventions and B doesn't have a major one. The omitted keys are those that were hardly used at the time. This is not their order in the final version of 1723, which is itself different from that of the earlier version in the *Clavierbuechline for Wilhelm Friedmann* (1720.) There, the order was: C, d, e, F, G, a, b (ascending from C to B on keys whose triads consist of tones of the C major scale), and then B-flat, A, g, f, E, E-flat, D, c (descending from B-flat back to c on more "difficult" keys). This applies to both the *Praeambulae* and the *Fantasien*. It is quite natural to explain this order on didactic grounds. This was all changed in the later version whose key order is more like that of WTC (with the above omissions and the change of names to *Inventiones* and *Synfonias*), composed roughly at the same time, namely: C,c,D,d,E-flat, E,e,F,f,G,g,A,a,B-flat,b, which may suggest that that stage Bach thought less of didactic and difficulty considerations.

The subjects of most inventions are relatively short, and they demonstrate "what to do with them", as Bach says in his preface. It is known that Bach continued to use the inventions for his teaching, both of playing and of composing, and even wrote some refinements to some of them after 1723. In terms of genre and polyphonic structure both the inventions and the synfonies are kinds of their own and can hardly be fitted into known forms like a fugue, sonata, prelude etc.

The renowned organist and Bach scholar Albert Schweizer writes enthusiastically of the inventions – both of their didactic and of their artistic value:

> "Each of these works is a masterpiece sui generis, with no exact analogue among the others. Only an infinitely fertile mind could venture to write thirty little pieces of the same style and the same compass, and, without the least effort, make each of them absolutely different from the rest." (ibid, 331)

Indeed, each one of these compositions is a supreme lesson in contrapuntal writing, with a clear didactic goal, but also a paradigm example of such writing – musical pearls. Their didactic value is also for compositional purposes – how to compose a contrapuntal piece of a clear structure, a specific length, a specific degree of difficulty, with a varied musical material – as well as for performing purpose – how to perform such works. This applies both to the 2-part inventions and, perhaps even more, to the 3-part ones, many of which are quite complex pieces, with counter-subjects and transitory passages, all built up by the basic material of the subject, in a manner that makes one wonder at it each time anew.

Counterpoint

Artistic western music (at least since the 16th century) is characterized, against all other kinds of music known to us, in its contrapuntal richness and its combining with a rich harmonic organization. On a crude generalization, Eastern music, for example, can be rich and melodically and rhythmically sophisticated not less, and even more than western music. Even its scale base (e.g. the *Makamat* of Arab music, the *Rahgas* of Indian music) can be richer, more multifarious and fine-grained than the modes and the diatonic scales of western music. But real counterpoint we find only in western music (except of parallel voices, which is not real counterpoint), likewise with organized functional harmony. These two facets, with their combination, inter-mingling and interrelations, reached their finest manifestation in the music of Bach. The inventions and the sinfonias, with all their seeming simplicity are paradigms of that – particularly of the contrapuntal factor with which we shall be concerned. We shall concentrate on the 2-part inventions, both because they are better known and because by their nature they are simpler and more transparent (which does not deprive anything of their value). However, most of what we shall say apply, with appropriate changes, to the 3-part sinfonias as well. We shall confine ourselves to some general features of the polyphonic texture and not to technical details of the melodic development and of voice leading, which were the main concern of the theories of counterpoint of the relevant period.

There are various kinds of polyphonic music – when some voices are heard together. Without going into detail, the main theoretical interest and practice of counterpoint before Bach was in combining several voices together, each having its own "logic", so that their being combined together will "sound agreeable", will be pleasant to the ear. Satisfying these two conditions is not an easy task, and a lot of talent, hard work and theoretical thinking was devoted to learning rules and techniques that will ensure its achievement, even to a minimal degree. To my mind, what is special to the contrapuntal writing of Bach – and this is characteristic also of the inventions – is that the various voices do not only fit one another so that their sounding together is pleasant to the ear, but that they correspond (literally, co-respond) to each other; they are set in a well-defined and structured correlation; they copy and imitate one another, they complete or contrast one another, etc. in ways that not only have their inner logic, but are connected to the structure of the whole piece and to its harmonic progression.

One can compare it to a **conversation** (the comparison has its limits, see below) or a discussion between people. We can think of situations in which several people talk

together – a medley of simultaneous sayings, each with its own logic, without any connection or correspondence between them. This of course is not a conversation. One can think of a more organized multi-talk, in the spirit of the pre-Bachian counterpoint, where each one produces his saying, but there is some correspondence between the various sayings – in time, tempo, subject-matter, so that it won't be grating. But this is still not a conversation – the speakers are indeed somewhat coordinated, but there is no inner mutual linkage between them. What constitutes a conversation is inner mutual linkage: the one responds to the other, agrees with him, objects to her, strengthens her etc. Not all conversations are like that. There are for example, many "conversations" in which one tells the other a tale or report, the other (at best) listens, and then tells another story, etc. Many chats are like that. In others, in spite of talking on the same subject, they don't really refer neither respond to what the other have said, sometimes – hardly listening to it. These are not real conversations, in which there is genuine referring and linkage, genuine give and take, mutual responses etc. We shall see that this is an essential point in the Bachian counterpoint.

We can think in similar terms of **dancing**: In various dances some dancers move together and make the same movements. This is a sort of "dancing unisono" if we may say. We can also think of "poly-dancing" in which several dancers move simultaneously, but each one – to himself. In a more organized manner the movements of each dancer can have their own "logic", direction and style and their being combined together will look nice and agreeable to the eye. These are parallels to the pre-Bachian counterpoint we mentioned above. But we may also think of such "poly-dances" being really contrapuntal in the sense that each dancer attends to and responds to the others, where there is a real linkage between them, when one reacts to the other, imitates him, opposes him, move in contrast to him etc. Again, the linkage and correlation can be of various different kinds. It is difficult, and perhaps impossible to define its borders in objective terms that do not depend on the intentions of the dancers. These borders are often vague and blurred, so that one cannot tell when it is just a medley of simultaneous movements and when there is a real linkage and mutual referring. But the distinction itself is I believe clear and is often actually observed, at least by *connoisseurs*.

One of the obvious differences between conversation and dance has to do with time-relations, and this is of special importance in music. In a conversation people don't talk simultaneously, but each in his turn. In dancing this, though possible, is not necessary and

not in general so. But these two basic factors – the genuine linkage and the time relations are constitutive in both fields, and in music as well.

Like what was said above about dancing and talking, in music there is sometimes also "raw" or "casual" polyphony with no genuine linkage between the various voices (this has become an intentional genre is some trends in modern music). When this is blatant and continuous, this is not a real counterpoint. On a "higher" level of organization, polyphony becomes contrapuntal when the various voices are coordinated and compatible so that with the independence of each, they fit nicely together. This, as remarked above, is a characteristic mark of contrapuntal writing, especially before Bach. As we shall see this is important in understanding a particular contrapuntal genre of Bach's, finely demonstrated in the inventions, when a work begins as a combination of two independent voices, which is nice and pleasant harmonically and melodically, where apparently there is no genuine linkage between them, but by and by, it turns out that this is not so and there is a deep correlation between the voices (See for instance No.5 (E♭), No. 9 (F minor), No. 11 (g minor)). The correlation is manifested in many different ways, eminent among them is when in the course of the work the subjects or roles of the two voices exchange: each voice takes the subject of the other, imitates it, changes it develops it etc. (This is a sort of what is called "invertible counterpoint"), and then they can return to their original role, with or without change. Not less important is the thematic relationship between the voices, which often gets clearer in the course of the work. As remarked above, in Bach, these relations build up a rich texture which has also a structural significance. I shall call this kind of polyphony "the conversational model".

I have emphasized the comparison to conversation in order to distinguish it from the general comparison of various aspects of music to those of rhetoric. The latter was quite widespread in Bach's time, and undoubtedly well known to him. Rhetoric was a recognized academic discipline. One of Bach's friends – Johan Abraham Birnbaum – was a professor for rhetoric at the university of Leipzig. We know about him mainly because of his enthusiast defense of Bach against a critique raised by Johan Scheibe (mentioned above). One of the most important and influential theoretical book in the 18th century – *Der vollkommener Capellmeister* – by Mattheson also emphasizes the comparison of music to rhetoric. In his book *Bach and the Patterns of Invention* (Harvard Univ. Press, 1998) the musicologist Laurence Dreyfus discusses this comparison at length, and in the first chapter carries a detailed analysis of the first invention (in C) in light of the concept of *Inventio* that was central in the theory of rhetoric and, according to him, also in the music of Bach.

As said above, the importance of the concepts of rhetoric notwithstanding, it seems to me that for understanding Bach's counterpoint, in distinction to previous ones, there is a special importance to the notions of conversation and their comparison to music, which, unfortunately, were much less discussed.

Counterpoint and Imitation

The notion of imitation or copy is a key to understanding Bach's inventions, in fact, for understanding his contrapuntal music, and perhaps for understanding music in general, and with excessive generalization, perhaps for understanding human communication. Imitation is a wide and multifarious notion. When musicologists and philosophers of music talk of imitation in music, they often talk of imitation, within a musical work, of noises or extra-musical acoustic phenomena – the noise of a locomotive, or a nightingale, or waves in the sea, etc. I shall talk of another notion of imitation – inner musical imitation within a particular work, which concern not acoustic sounds, but musical tones, which are acoustic sounds conceived under musical concepts and functions. Such imitations bear significant acoustic changes, and consist basically in copying a certain musical pattern. When, in a Bach invention, a voice imitates a theme or a passage in another one, it can do it not necessarily by exact copying of it as it is, but in transposition and with some other changes, and we still perceive it as imitation. What is imitated is not notes conceived as acoustic phenomena, but a certain musical pattern – a melodic line, a rhythmic pattern etc. – and these patterns are quite elastic. Some of these changes are required for harmonic and tonality considerations, some are ornamental, and some are more sophisticated. Inversion, for example, is a copy of a certain melodic pattern (with inverting the intervals, see, e.g. No.11 m. 4, or No. 1 m.15), and so is augmentation (when the rhythmic value of a tone is expanded as e.g. in sinfonia No. 9 in F minor), diminutions, and more.

Imitation is of course a central idea in many other artistic genres (comedy, satire, caricature) and in representation in general. Some people think that art is based on imitation (*mimesis*). For understanding its importance in Bach's counterpoint it may be advisable, as said above, to think here of conversation and dance. I suppose that in general, we don't think of conversation in terms of imitation and copy, but in terms of content relations like mutual responses, agreements, objections, confirmation, refutation, expansion etc. But isn't the notion of imitation at the basis of all these? Conversation is perhaps a difficult example because it is based on content-relations. However, it could be argued that these are also based on imitation. For, imitation in

general is an **intentional adopting or intentional repeat of a certain aspect in the imitated**. When a person responds to another – either in agreement or in an objection – he talks of "the same subject", often with the same words. And in this concept of "talking of the same subject" there is an element of imitation – of intentional adopting and repeating the subject talked about. However, although this abstract notion of imitation is perhaps at the basis of our concept of conversation, it must be admitted that in conversation there need not be imitation *simpliciter* – the parties to a conversation do not literally repeat the sayings of each other, even though they do repeat certain aspects or subjects.

In order to avoid some of these difficulties of content-relations, and for understanding the role of imitation in music (in which there are no content-relations in this sense) we could do better in thinking again of **dance**. Every movement and every gesture are generally grasped under a certain aspect, and the same movement can be grasped under different aspects. They incorporate different aspects that can be expressed by different descriptions. A certain movement of a dancer can be grasped as a left-hand-movement, as a round movement, as a soft movement, as a movement to the right, as a long movement, as a quick one etc. Each of these different aspects can be the focus of a response in which it will be imitated: the response can be a right-hand-movement, a round leg movement, a sharp movement, etc. In each of these responses a certain aspect of the original is adopted and imitated. This forms a sort of "super predicate", that applies to both the original and the response. It is sometimes difficult to define this super-predicate, which may not have a name in our language, but it is often quite easy to demonstrate. In any way, choosing such a focus or aspect of a response is what characterizes imitation in general (it is conspicuous in comic imitation and caricatures). In classical ballet, when a female dancer taps on her fingers to the left, and a male dancer taps to the right, it is clear to us that in his movement he responds to hers by imitating it. It is clear because here the focal aspect is conspicuous and grasping it is immediate. But in principle, the dancer could react contrarily in wild jumps, and if it was indeed a response, there would necessarily be such a focal aspect that was imitated, that was common to them both. Otherwise, why should we see his movements as responses to hers and not just movements that he made after hers (perhaps without even noticing them)?

What are the conditions for a certain movement or action to be a response to another, is a difficult problem. Is it necessary that it is intended as such? Is it sufficient? Should

it come immediately after, or can there be a time lap? How long? What distinguishes the aspects that are relevant for constituting a conversation, or a dancing response, or a musical response, from those that are not? These are difficult questions, whose answers obviously depend among other things on context and other pragmatic factors.

I don't have a general answer, and perhaps there cannot be one. The issue is determined in different circumstance, different contexts and for different purposes by different factors, which the cultural person, who is knowledgeable, sensitive and understanding in the relevant area (painting, dance, music, conversation, academic discussion, gossip, etc.) knows and can weigh their relative importance, and can therefore recognize and appreciate an appropriate response. This is a space of comparisons in which such a person feels at home, and only in relation to such a space, value judgments have sense in general, and aesthetic value in particular. Although in a general and abstract sense everything can be an imitation of everything, in fact, a cultural and understanding person in a certain domain knows to identify imitations and recognize their relevant aspects, which only relative to them the imitations have sense.

Kinds of Counterpoint in the Inventions

Based on this notion of imitation, and on the fact that conversation in general and counterpoint in dance and in music in particular are constituted by it and by the time-relations between the various parties, we can distinguish some **kinds** and some **types** of counterpoint in the inventions (as usual, for understanding the following it is advisable to have the score open before the reader). In general, most imitations are in the tonic (of the original, usually an octave below or above) or in its dominant (e.g. No 10 in G, No. 12 in A, No.14 in B-flat, No. 15 in C minor), though some abound in modulations of the subject (e.g. No. 5 in E-flat). Imitations in all the inventions are not only of the subject but also of motives derived from it in developmental section.

A. **Simple Imitation** – one voice plays a certain subject, the other is silent to its end (or to a great part of it), and then responds. The response can be a genuine imitation of the subject (often, in the octave or the 5th), or a variation of it. A clear model of imitation is the canon, which is a permanent imitation: the second voice imitates the first in its entirety. Simple imitation has many sub-kinds in the inventions. One of the commonest is the **alternate imitation**, in which in the course of the imitation each voice develops a character of its own, while they return to imitate one another and to separate again, and so on. The imitation can be exact or close to that. Sometimes the

imitation is **immediate**. An example is No. 8 in F major, which is almost a canon. No. 10, in G is also an example of immediate imitation, and No. 13 in A minor exemplifies it in a freer way. A simple imitation is sometimes **delayed**. An example is No. 2 in C minor, which is also almost a strict canon, in which the entrance of the second voice is much delayed (about 30 notes). No. 3 in D is an intermediate case between the immediate and the delayed, both in the main subject and in the secondary one (m.12), which builds the bulk of the invention. Many of the subjects in the inventions consist of two sentences, where the second voice enters with the second sentence in the first. Delayed imitation occurs usually only at the beginning of the piece. In the middle of an invention it rarely happens that a voice is silent, but there are sorts of approximation to this when one voice keeps a long note, trill, or a trivial accompaniment. The contrapuntal genre called *Stretto* is an accelerated immediate imitation. An example occurs towards the end of No. 14 in B♭. Many of the sinfonias in 3 voices contain strettos (No. 3 in D, m. 14; No. 9 in F minor, m.28; No. 13 in A minor, mm.41-45).

B. **Dialogue** – Two voices converse with different subjects: each one plays its subject and they combine and intermingle, or complete each other. Again, the dialogue is sometimes immediate and sometimes delayed – when the second voice enters with its subject after the first one completes its saying (or most of it). Examples of immediate dialogic inventions are No. 6 in E, No. 9 in F minor, No. 11 in G minor, No. 12 in A. No. 5 in E♭ can be regarded as delayed dialogic (in spite of the opening octave in the left hand). These examples are rich also in invertible counterpoint (explained above).

Here we also have some sub-species. The dialogue is sometimes an **accompanying** one, when one voice is mainly accompanying (sometimes with partial imitation, sometimes with notes of the chords of the harmonic progression) the other voice, which is the main one (see No. 1 in C, No. 7 in E minor, No. 14 in B♭, No. 15 in B minor. This accompaniment can be **completing**, when the one voice completes the other, so that they can hardly be separated (No. 6 in E), or **opposed**, when one voice is opposed in character to the other (No. 5 in E♭). I include these accompanying voices in the dialogic model, because, as usual in Bach an accompaniment is an independent musical voice. This sub-species is abundant in the 3-parts sinfonias. In the inventions, examples are No. 1 in C, and in a simpler and more elementary form No. 14 in B♭, and No. 15 in b minor.

It is characteristic of Bach's contrapuntal dialogues – the immediate ones with different subjects, as well as the accompanying ones – that in spite of the fact that they

begin with entirely different materials, in the course of the work they enter into an **imitating interaction** – they either exchange roles, or strictly imitate each other. This of course is valid also of the inventions, and is quite characteristic of all of them.

Many of the inventions have a triple a-b-a* structure, where the motivic and thematic relationships between the a's and the b's is very tight, to the point that b appears as a development of a (again, in accordance with what Bach said in the preface). One should pay attention to the transitory passages between one imitation or dialogue and another – these are often secondary dialogues that are built up of the same materials of the main dialogues. What makes them secondary is the structure of the work.

I don't intend these classifications to be exhaustive, nor sharp or exclusive, and it is perfectly possible that a work will belong to some of them and the borders be vague. The very analogy between human conversation and these kinds of counterpoint in music is, evidently partial and limited. A crucial difference, as said above, is that conversation is in general not simultaneous – when one speaks, the others are in general silent. In music on the other hand a constitutive fact is the simultaneity of the various voices. This has to do with a perceptual peculiarity of music (in contrast to the perception of colors for instance): we perceive different tones and different voices simultaneously, and each is perceived clearly in itself (in contrast to e.g. colors, whose mixture erases their individual identity) The analogy to some kinds of dance is closer and perhaps more apt, but less explanatory, for they are less familiar and known than conversations.

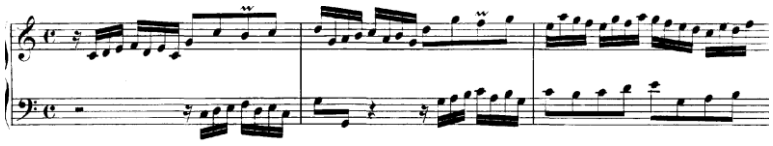
Types of Imitation

The above distinction between simple imitation and dialogical one was concerned with the kind of imitation – the manner in which it takes place. It is worthwhile to identify also different types of the content of the imitation – of the imitated material. We can discern here **three main types** in the inventions: 1) Partial motivic imitation; 2) Full subject imitation; 3) Structural imitation. These distinctions are also not dichotomist – there is more or less partial: No. 1 (in C) is more partial than No. 3 (in D), which is more partial than No, 4 (in D minor), which is more partial than no. 8 (in F), which is more partial than No. 2 (in C minor). In all of them, as in music in general, there is a structural imitation, when repeats and imitations determine the structure of the work. It is clear, for instance, that when the opening is repeated (including the key) towards the end, the point of the repeat (which is usually prepared with a cadence) has a structural significance. The main classical forms, like the lied form, sonata form, rondo, fugue etc.

are characterized by structural imitations and repeats. We cannot enter here into a detailed discussion and analysis of these matters and to demonstrate them in all the inventions. We shall confine ourselves to exemplifying some of these characteristics and distinctions in the three main types mentioned above.

1. **Partial Motivic Imitation**

Invention 1 in C is an example of this. The first subject (mm.1-6) consists of two short motifs presented in the first sentence (1-2) in the tonic and the dominant. The second occurrence (in the dominant) is of course an imitation of the first. Meanwhile, the second voice in the bass gives a sort of support – as if a gesture of approval, which has of course an imitation of the first motif. The contrapuntal texture is here thin and elementary (it will become richer in the sequel), but it is worth noticing the imitating sophistication even here, for instance in inverting the motif in the upper voice (3) and in augmenting it in the ascending fourth in the lower voice there. Here No.1, the first 3 bars:



After that, we have 4 bars of a sort of development of the inverse of the first motif, and in this inverse, as such, there is a clear imitative element.

The second part (7-14) opens on the dominant with two bars in which these roles are exchanged between the voices. This of course has also an imitative character. This imitative exchange is a simple example of structural imitation. But there is here a deeper structural aspect, for, with all the apparent simplicity of the work, it has a sophisticated structure that gives it a dramatic flavor that is worth pending on a bit. With reference to the conversation model we can present it thus: The work opens with the saying of the upper voice, where the lower one accompanies it with a slight approving gesture, as if saying: "yes, I am with you". This pattern is maintained when the voices exchange roles (7), but in (9) the tension enhances in the rising sequences, as if the conversation is a little heated, but the voices are still parallel. In (12) the tension strengthens when the voices separate – this up and the other down – and it reaches its climax to a real "debate" in (13-14), which is the peak of this little drama, and ends in a cadence to A minor. There (from 15) begins the third part in the relative minor (A minor). This part is an imitative game with the inverse of the first subject we encountered already at (3). In

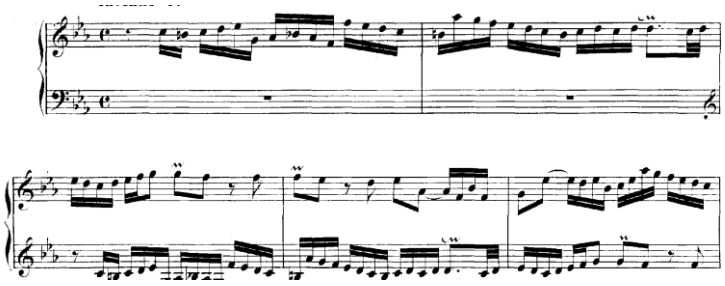
this third part, after the heated debate, the participants reconcile and come back to talk quietly, but this time, unlike in the beginning, they talk as equals – there is no leading voice and accompanying one. It is as if from the tension in the previous debate there emerged two independent characters of equal status. Even the imitative voice is in a different tonality than the original). The work ends (from 19) in a series of sequences of the first motif, with a supportive and confirmative contrapuntal accompaniment in the second voice, in an atmosphere of complete reconciliation.

This kind of description is perhaps too simplified and may seem artificial, but its aim is to present the structural sophistication of this seemingly simple work and how the imitative element contributes to it.

Other examples of partial motivic imitation are No. 3 (in D) and No. 7 (E minor).

2. **Full Subject Imitation – Canon**

As remarked above Invention 2 in C minor is almost a canon. As if in a deliberate contrast to the first invention, the contrapuntal texture here is rich and compressed from beginning to end. The main theme of the first voice is particularly long (1-10) and it is exactly imitated (one octave lower) in the second voice (from 3). Therefore, two bars of the first voice are missing at the end of the second one. Here the first bars of No.2:



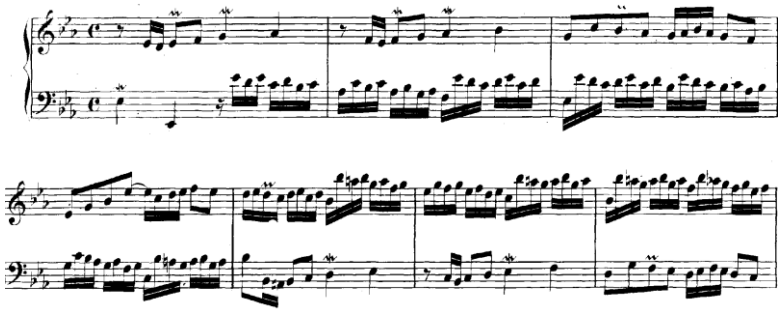
Roles are exchanged in (11) when the second voice takes the main subject on the minor dominant. This exchange is of course an imitation, for each voice imitates what the other did before. Apart of the importance of this imitation in forming the linkage between the voices, it also has a structural meaning with a dramatic flavor, when the imitating pace is doubled at (21) in a dense and dramatic passage approaching the cadence back to the tonic (23).

Another example, which is half a canon is No. 8 in F. But it is much simpler and less sophisticated than No. 2 (which was probably the last to be composed). The trumpeting fast opening theme is on the chord-notes of F, which is a common and relatively simple means of canon-writing. The second voice enters here much earlier than in No. 2.

A close example to this type is No. 4 in D minor. It begins with a full motivic imitation at the octave and the imitative character is maintained throughout, for instance, when the lower voice (11-25) imitates in transposition the upper voice of (5-17) with a little change for the cadences. Here also it is worth noticing the dramatic intensifications approaching the cadence to the dominant (36). Invention 10 in G and 13 in A minor can also be included (with difficulty) in this category.

3. **Structural Imitation**

We have discerned above a contrapuntal kind that we called the "Dialogic model" in which two independent voices chat together. The first example of this is No. 5 in E♭ (we later find it in No. 9 in F minor, No. 11 in G minor, No. 12 in A). In the previous inventions (and in some subsequent ones) there is no real conversation: the second voice begins at once with an imitation (partial or full) of the first. But here (in No. 5) this is not the case: there is no such imitation at the beginning but two independent voices (though one can hear in the second a variant of an inversion of the first). However, soon after the beginning, which is a conversation between two independent voices, begins a non-stopping imitative game, where hands exchange roles in receiving each other's voices (invertible counterpoint) with rapid transfers and harmonic modulations, with virtually no other material. These exchanges and bridges between them build up the piece. Here the beginning of No. 5 in E♭:



This kind of game is an example of what I mean by "structural imitation", which is a characteristic mark in all the inventions: be the kind of counterpoint of the opening sentence what it may, it is almost certain that in the sequel there will be structural imitation in which each voice imitates what the other did previously. The result is a double imitative effect: both the imitation one voice makes of another, and also that between a sentence (phrase) and a previous one. The essentials of this model apply to all the inventions in this group. It is worth noticing that the inventions of this group are

probably the last to be written. Examples of this dialogic model are the wonderful inventions in F minor and G minor. Another example is the second sinfonia in C minor, and there are more.

The relative independence of voices is of course a matter of degree – there is more and less independence. This was at the centre of the theory of counterpoint, where the goal was for maximum independence (melodic and rhythmic) of the voices, with the maximum harmonic fit between them. In the great fugues of the WTC and of 'The Art of Fugue' there are many remarkable examples of such independence. The inventions of this group, to which the E♭ can be added, are examples of a relatively great independence, though somewhat less than in these great fugues. An example of a more partial independence is No. 6 in E, in which the two voices in fact complete each other rhythmically, when one steps down in syncopes relative to the diatonic ascent of the other. This invention is also special in its length; it is relatively slow, and is the only one in which Bach requires repeating each of its two parts. In the second part there is a sort of development, enhancing the harmonic and rhythmic density.

The joining of the independent voices in what we called "the dialogic model" with the structural imitation creates a tight connection between the dialogic model and the delayed imitation. In fact, in most of the inventions of the dialogic model, one of the voices in the dialogue proves in the sequel to be the main voice, and the other as carrying a sort of counter-subject, so that if we delete it from the opening sentence, we shall get a delayed imitation, somewhat like in an opening of a fugue.

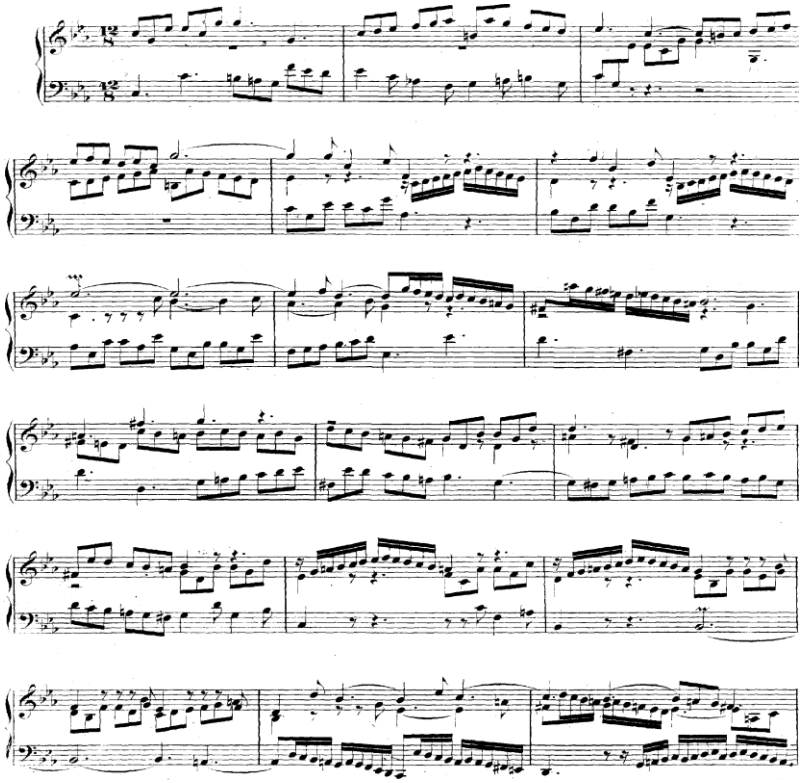
A Word about the Subjects

Since our topic is counterpoint, we have focused on the relations between the voices. But a word must be said about the subjects themselves. They are not only beautiful melodies, but contain the seeds of numerous variations and developments, within the contrapuntal confinements, as Bach aptly explains in his Preface. Sometimes these variations use common techniques: inversion, for instance is evident in the first invention in C. See also e.g. the inversions of the chromatic subject of the lower voice in the wonderful G minor invention (mm.3, 13), which Bach sometimes put in the upper voice combining the melodic inversion with inverted counterpoint.

Something on the Sinfonias (BWV 787-802)

As said above, I shall not discuss here in detail the wonderful 3-part sinfonias, but what was said above can help, I hope, in their understanding, for they often contain a marvelous simultaneous combination of the kinds and types we discerned in the

inventions. An example is the combination of the dialogic model and the delayed imitation in Sinfonia 2 in C minor, in which 3 subjects are "discussing" while imitating each other and exchanging roles. As in all the inventions the structural imitation is also obviously clear here. For example, the general structure is, like in many of the sinfonias, dual, and it divides in the middle: the exposition part (1-18) and the development part (19-32). The first part divides itself into two equally long sub-parts (9). The first (P1) is in the tonic (it is the only sinfonia in which the imitation is also in the tonic), and the second (P2) in the minor V. P2 imitates P1 with voices exchanged, where, in general the role of the upper voice in P1 is transferred in P2 to the lower one, the role of the lower voice in P1 is transferred (with some changes) to the middle voice, while the latter's role is transferred in P2 to the upper voice. This, a kind of "inverted counterpoint", is an example of structural imitation of the kind we encountered in the inventions. Like there, also here the imitation is not an exact copy. In the opening sentence (1-4) there is a simple imitation where the subject in the upper voice (1-2) is imitated in the middle one (3-4). The counter-subject in the lower voice is used in the lower voice of (8-9), and provides the rhythmic element of (2) that is repeated in many places in the sequel (e.g. 5-6). Here sinfonia 2, the first part (1-18):



Naturally, there are in the sinfonias many contrapuntal elements that are not in the inventions. Their contrapuntal and imitative texture is richer and the combination of the

various imitative types is more complex. Their expressiveness power is, if we may say, also stronger. All this is done within a strict thematic framework, in the spirit of what Bach says in the preface that the basic motif is a key to whatever goes on later.

We shall not expand on these, but there is one thing that is prominent in the sifnonias much more than in the inventions on which I would like to dwell a bit longer. I would call it "**imitative rhythm**" (in analogy to harmonic rhythm). Generally speaking, it means the pace in which one voice imitates another – either in a short motif or an entire theme. Stretto is a clear example of a change in imitative rhythm. The difference discussed above between immediate imitation and a delayed one is also a matter of imitative rhythm. This difference can, as we have seen, distinguish different 2-part inventions and even different groups of inventions, but in general, the imitative rhythm remains more or less stable within an invention. There are exceptions, like No.14 (in B♭), where the imitative rhythm is much accelerated in the second part (from (12), to the parallel motion of (14) and to the stretto of (16).

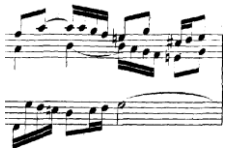
However, a characteristic mark of many of the sinfonias (as well as many of the fugues of WTC) is that the imitative rhythm changes within a work, and that there is a certain structure, a certain logic to these changes. An example is the development (from 19) in sinfonia 2 in c minor discussed above. Soon in its beginning, the motif of descending 16th notes, which in the exposition (8-9) was separate from the main subject, enters and is incorporated into the main subject in the upper voice, and this is enhanced, with a marked tension in a sort of stretto of the main subject in (28-9).

Other examples of changes in imitative rhythm is sinfonia 3 in D, and sinfonia 14 in B♭. In the exposition of No. 3 for instance, the subject passes, as usual, from the upper voice to the middle one and then to the lower one, while the imitative rhythm is roughly stable: Each voice gets the main subject after the previous voice finished it (this take roughly 3 bars –10 crochets). But in the development, right at the middle of the work, after a cadence to F# minor (14), the imitative rhythm is intensified up to a stretto of the main subject at a phase of one crochet – i.e. the voices are pressed one after the other in a difference of one crochet (quarter). This denseness is relieved in a long dialogue between the main subject and countersubject, leading from G back to D. Here the density and intensification of the imitative rhythm is in the middle of the work, and it is relaxed towards its end.

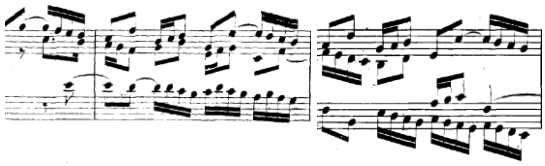
Sinfonia No 14 in B♭ is remarkable for its contrapuntal density throughout. However, there are two clear points of change in the imitative rhythm. One is in the exact middle

of the work, in entering the dominant F in (12), where the main subject is imitated between the upper and middle voice at a phase of one crochet (4th), while at the beginning of the work it was at a phase of a whole bar (four 4ths). The imitative rhythm is even further intensified towards the ending with a sort of a dense stretto at a phase of one quaver (8th note) in (17-19). Here two extracts from sinfonia 14 in B♭:

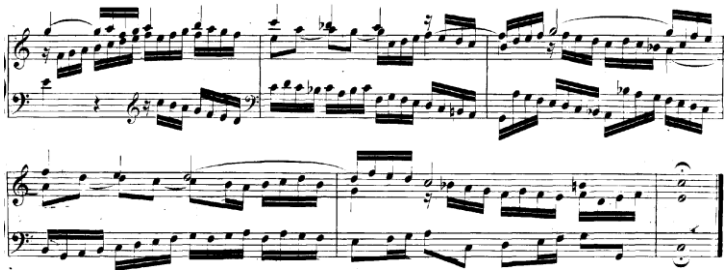
sinfonia 14, m.12



sinfonia 14, mm.17-19



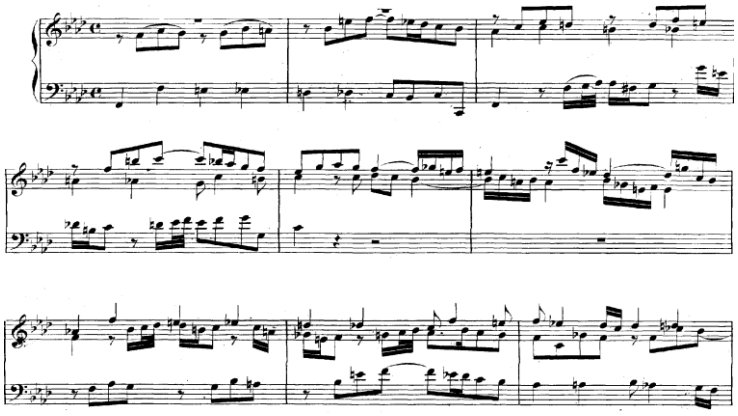
In the first sinfonia, in C, the imitative rhythm is also quick and dense throughout, but it also has a particular point, towards its ending, in which it is intensified. The entire sinfonia is an uninterrupted flow of the main subject, which rises in the upper voice (1), then in the middle one (2) and in the lower one (3), and of its inversion, which is a secondary subject (4). In (16) Bach modulates to F (17); the main subject goes up the middle voice, and in the middle of the way, in a sort of a stretto, its inversion is inserted in the lower voice, and a synthesis of both is created. Here from sinfonia 1 in C (16):



This happens here for the first (and only) time in the work. Before, we could find intensification of the imitative rhythm of the inversion in a sort of a stretto of three occurrences of it (9-11); at (12-13) we find an intensification of the imitative rhythm of the main subject in a sort of a stretto (upper and middle voice). Throughout the work this inversion appears quite often, as a sort of a secondary subject, but always after the main subject. This happens, e.g. in the lower voice of (4), the middle voice of (6) and of (9). But here in (16-17), which is (with the rising high 3rd A – B – C, and descending C-B-flat - A) in many respects the climax of the work, this second subject is inserted in the middle of the ascent of the first. Here the climax is not in the middle of the sinfonia, in the development, but towards the end.

A somewhat similar structure of changes of imitative rhythm to that of No. 1 is in sinfonia No. 6 in E. Towards the end of the exposition (17) a sort of a cadencial tail appears in the upper voice, which appears to be an inversion of the main subject, and it turns out in the development to be a kind of a secondary subject. In the development section there are 5 occurrences of the main subject (18-22), and 5 occurrences of the secondary one (23-26, 29), and then 4 of the main subject again (30-34). And then, after a tense pause, towards the end, 2 occurrences in which both subjects are combined in a sort of synthesis (35, 37). At the very end the main subject has the upper hand in two voices in parallel motion (39).

Contrapuntal rhythm need not necessarily be an imitative one of the sort discussed up to now. It can relate to other contrapuntal relations. But its manifestation in the form of stretto and imitative rhythm is prominent in many of the sinfonias. An example of contrapuntal and imitative relations between three voices is sinfonia No. 9 in F minor. There are in fact four subjects or motifs that are combined and intermingled between the 3 voices, and they are all built up of the same musical material, which is basically a chromatic move. Their first occurrences are: the main subject in the upper voice (1-3); simultaneous with it is the chromatic motif in the lower voice (1-3); the third motif in the lower voice (3-5); the syncope motif at the upper voice (9). These motifs are clearly similar and thematically related. The contrapuntal and imitative relations between them, when each one passes between the voices while the others are distributed in the other voices, are concentrated and dense in a way that is rare even in pearls of Bach's. Sometimes the denseness is of one motif: For instance, in the episode of (5-6) there is a development of the chromatic motif that is set as a stretto between the two upper voices, and in (26-27) there is a stretto of the main motif between the middle voice and the lower one, while the upper voice expands this motif by an augmentation from quavers (8th notes) to crochets (4th notes). Here from sinfonia 9, the first 9 bars:



Let me conclude. I have discussed some general aspects of the imitative counterpoint in the 2 and 3-part inventions of Bach. After exploring some aspects of the general significance of imitation, with comparisons to conversation and dance, I discerned two basic kinds and three basic types of imitation in the inventions: The basic kinds (concerned mainly with the manner of imitation) are simple imitation and dialogic imitation, each having its own sub-species. The basic types (concerned mainly with the musical material imitated) are: Partial motivic imitation; Full subject imitation; Structural imitation, each with its subspecies. All these apply also to the 3-part sinfonias, on which we were unfortunately much briefer, but emphasized in particular the significance of what we called "imitative rhythm" in them.

(This is a partial translation from my Hebrew article that has been in my site since 2011)

Gilead Bar-Elli, Jerusalem, 01.2021