Harpsichord & fortepiano

Vol. 26, No. 1 Autumn, 2021

Musical Instrument Research Catalog
(MIRCat)

Controlling dynamics on the harpsichord: some examples of techniques employed by 18th-century composers

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A criticism of the harpsichord which is still occasionally heard from lovers of the modern piano, is of its lack of expressive capacity: a player cannot alter dynamics through touch. A common response in defence of the plucked instrument is that the music written for it did not require this, and for much of the repertoire this may be true. In fact, although dynamic variation in harpsichord music was always less immediately audible to the listener than it became in piano performance, dynamics were sometimes in the composer's mind, and these could be transmitted simply through the ways in which the music was written.

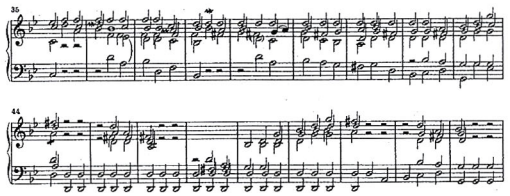
I have mentioned elsewhere, documented techniques adopted by musicians of the 18th century, which attempted to overcome this perceived deficiency of the harpsichord. These included playing some notes written as long, to a shorter length than some written short (and vice versa), in order to shift the emphasis to the correct beat: long notes sound stronger than short ones. In one instance, Rameau illustrated in notation how to play an appoggiatura, in order to make the ornament itself sound as loud as its musical purpose demanded. This too depended upon note-length.[1] Neither this, nor the use of ornaments as a means of accenting notes (a practice existing from the Renaissance) will feature in the present article.

Offered here are a few examples of the control of dynamic which could be gained as a result of how many notes were to be played at one time. Harpsichordists know, even if only instinctively, that a single note played on their instrument has less presence than two simultaneous notes, and even less than a larger chord: if measured scientifically, the chord will be found to be considerably louder. There are two reasons for this: the sound which the plucked string generates is multiplied by the number of notes in a chord; in addition, these extra notes more effectively excite the resonance of the instrument, producing a sonic result which is greater than the sum of its parts. The way the keys are struck can have the effect of reinforcing this difference (on some instruments more than others), but more fundamentally, a difference remains between the plucked and hammered instrument: the piano can make a single line of music more powerful than an accompaniment, even when this accompaniment is chordal. It can control the dynamic balance of a piece of music, independent of the written texture.

Listeners who enjoy early keyboard repertoire, but who do not have the experience of playing it themselves, can be misled by pianists, who sometimes exploit this facility in a way which subverts the composer's intention. Since a large chord can be executed very quietly, it is not uncommon to hear a pianist doing just that. In fact, when we see a Baroque composer writing chords containing six notes or more, there is no doubt that they were there to sound loud (relatively speaking). As for gradations of volume, one can, on occasion, hear a pianist closing a Bach fugue with a sensitive diminuendo, when the part-writing is designed (as we shall see) to create an increase in volume towards a strong closing chord. Of course, as I have said elsewhere, those who play Baroque music in the 21st century can in theory do so as they please. It may, however, be worth pointing out that internal evidence from (for example) early sonatas by Haydn, suggests that the change to a true exploitation of the dynamic capacity of a hammered instrument was a gradual process. Haydn is generally regarded as a composer for the piano. But he followed 'old rules' of composition into the 1770s, since his keyboard music up to that date was written mainly for the harpsichord. This was his own instrument, and that of most of those whose purchased his sonatas, but there is no abrupt change of compositional technique once Haydn began to aim his music at pianists.[2] Still less would an earlier musician like J. S. Bach have been likely to counteract in performance on a Silbermann fortepiano the internal message given by the notation.

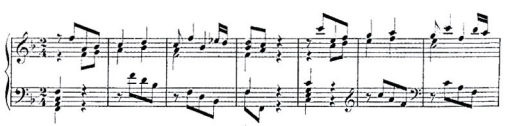
Baroque composers wrote carefully, sometimes exploiting the differences in dynamics produced by varying textures. Very occasionally we can see one revelling in the sheer sonority which can be achieved by writing a succession of loud chords – which of necessity must contain a lot of notes. In fact, in the following example (Ex.1), Bach's contemporary and friend Georg Böhm went a little further, creating a series of crescendos by increasing the number of notes within successive ascending chords, as in the sequence from bar 46. On most harpsichords, however, the effect of crescendo is slight: the effect is equally due to the ascent of the passage from bass to

treble, and it is at the same time reduced by the pervasive resonance generated by the repeated bass octaves:



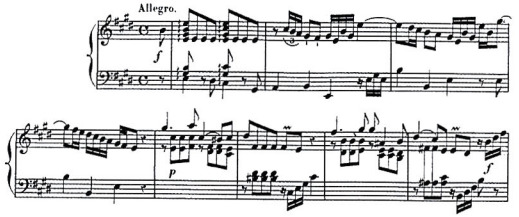
Ex.1: Georg Böhm, Prelude Fugue and Postlude in G minor, bars 35-50

Moving to music where changes of dynamic are immediately obvious, these can be indicated by dynamic markings like *forte* and *piano*. These were rarely used in Baroque keyboard music, and often referred to a change of keyboard on a two-manual harpsichord. A few of J. S. Bach's best-known keyboard works illustrate the use of markings for *piano* and *forte* for dynamic contrast, the clearest being the Echo movement from *Overture in the French Style* BWV831. This uses the two keyboards of a large harpsichord, imitating a genre popular with his French contemporaries. We also have the Italian Concerto BWV971. This is one of only a few works for which Bach actually demanded a two-manual harpsichord. The purpose in this case, however, was unique, and widely admired in his time: the imitation of orchestral *soli* and *tutti* passages, by the independent use of a light registration against a louder combination. The slow movement relies entirely on the facility of a second manual, which can play the accompaniment (which is nevertheless written very sparingly) more quietly than the solo line. The opening movement, however, begins with no markings at all, but the left-hand chord makes for an emphatic beginning (Ex.2). Dynamic markings of ***f*** and ***p*** are only introduced when the first solo passage appears. We can therefore set this piece aside too, since the markings in any case have little to do with the kind of dynamics which will be under consideration here.[3]



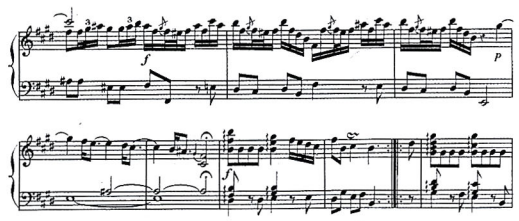
Ex.2: J. S. Bach, Concerto in the Italian Style, BWV971, bars 1-7

The young C. P. E. Bach wrote a number of sonatas while still very much under the influence of his father. Sebastian's arrangements of concertos by Vivaldi and others paved the way for the Italian Concerto, and will have inspired his sons in their early writing. Indeed, some scholars feel that the work, along with other mature works by Bach, is imbued with elements of the *galant* style.[4] Some of Carl Philipp's surviving sonatas date from as early as 1731, at which stage little interest in internal dynamics is observable. Despite this, several remained of interest to the composer, who published them up to three decades later. Most are, in my view, harpsichord works, which soon began to seek to include dynamic variation. The next example here is from a work of 1746, composed after Bach's move to the Berlin Court. Seven-part chords in the first bar quickly revert to two-part writing, so that the arresting beginning soon reduces in intensity (Ex.3). The use of basic dynamic markings goes beyond what Johann Sebastian would normally have used.[5] Here the first line is marked *forte*, but the part-writing itself makes just the opening chords truly 'loud'. A change of subject in line two has the accompanying part marked *piano*, suggesting a left-hand shift to the upper keyboard of a two-manual instrument, as in the Italian Concerto. This is quite different from the more detailed changes of dynamic which were to be exploited in Carl Philipp's clavichord compositions.



Ex.3: C. P. E. Bach, Sonata in E major, Wq.62/5, Allegro, bars 1-8

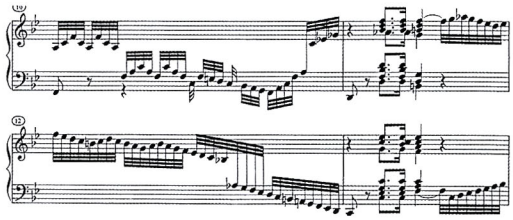
Even when both hands were to move to the upper keyboard, however, the composer was not simply writing the music in 'blocks' of loud and soft material, expecting an alternation of keyboard alone to achieve the changes: we find inherently strong, 'busy' textures, given a *forte* marking, but no similar material marked *piano*. The 'modern' introduction of ***f*** and ***p*** signs should not disguise the fact that Carl Philipp used them, not to be a sole indicator of different dynamics, but as reinforcements of the dynamics which he continued to control by his part-writing. This is dramatically shown at the close of both halves of the movement (Ex.4):



Ex.4: C. P. E. Bach, Wq.62/5, Allegro, bars 16-22

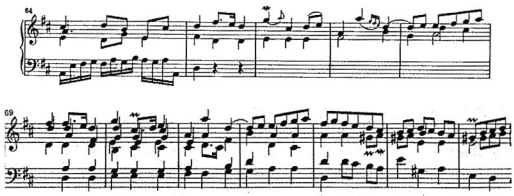
One may suggest that this use of dynamics was moving beyond true Baroque composition. But Carl Philipp's father had taught his sons the technique which underlay

it; he had in turn borrowed examples from his mentors Georg Böhm (of whom more below) and J. K. F. Fischer, whose D major prelude from his Suites of 1696 inspired Bach's B flat Prelude in Well-tempered Clavier I, BWV866 (Ex.5). No dynamic markings are necessary; the unexpected chords in this example are automatically very loud indeed, but the low D and C which precede them are deliberately left bare, unreinforced and short, concluding as they do, passages consisting of a single line. In other words, the *forte* begins with the chords:



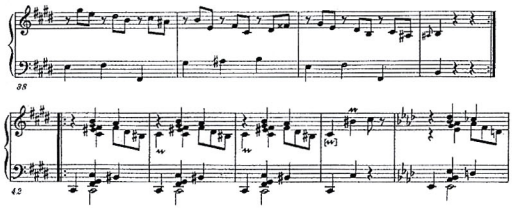
Ex.5: J. S. Bach, WTC I, Prelude in B flat BWV866, bars 10-13

We have now encountered another use of loud chords: to generate contrast or surprise. This can sometimes be subtle: in the next example, Georg Böhm follows four bars of gentle material played in the treble, by a repeat of the same motif; this is not just varied, but greatly expanded and supported by grand expressive chords (Ex.6). Of course, the increase of dynamic is inextricably bound up with an increase in impact caused by the nature of the chords. We can refer to this as the dynamic use of texture. One cannot separate the two elements, but can hear the imitation of *soli* and *tutti* sections of the orchestra, as in concertos by Muffat:



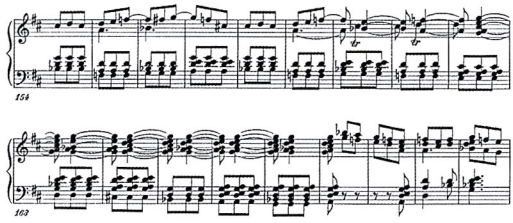
Ex.6: Georg Böhm, 'French' Suite in D: Chaconne, bars 65-75

Scarlatti, in a Sonata in E major K215, takes this use of contrast to a far more blatant level: the ending of the sonata's first half, reinforced by a repeat, leaves the listener in a mood of quiet calm: the writing has become almost a single line, with the gradual descent of the right hand enhancing the effect of a reduction in dynamic. The start of the second half dramatically destroys this. Violent nine-part chords on the off-beat are made even more striking by dissonance and an unexpected change of key (Ex.7). This is almost as great a change of dynamic as is possible on a one-manual harpsichord of the type probably used most often by Scarlatti:



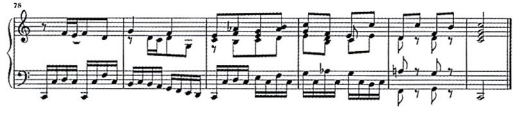
Ex.7: Scarlatti, Sonata in E major K215, bars 38-46

More subtle, but equally dramatic, is the creation of crescendo or diminuendo, by use of the same technique of using more or fewer notes. In K119 Scarlatti achieves this, even from a starting point of some power, through an increase in the number of notes in his chords, over two lines (Ex.8). Discords add to the drama, and by having the left hand descend steadily into the bass, the crescendo is reinforced, as a harpsichord always has a more powerful resonance in that area of the compass:



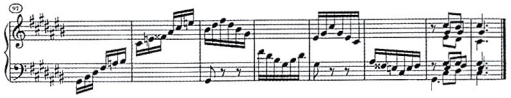
Ex.8: Scarlatti, Sonata K119, bars 154-171

There can be no doubt that the use of dynamics for emotional effect was of secondary importance to the older Bach, as a keyboard composer. We shall see later that it was alien to the central repertoire of dance music. But it was not of great use either, when composing music to inculcate keyboard facility in his students, and contrapuntal facility in particular. We can, however, observe Bach's liking for strong, forceful endings, which he was able to produce by the simple means already described. A fugue will of its nature begin quietly, with the first entry of a single line, and to some extent the general dynamic level of this kind of piece will depend upon the number of parts, be it occasionally two, and most commonly three or four. In the Well-tempered Clavier Book II, the very first fugue, in three parts, returns at its conclusion to the powerful character of the start of its prelude (Ex.9):



Ex.9: Bach, WTC II, Fugue 1, bars 78-83

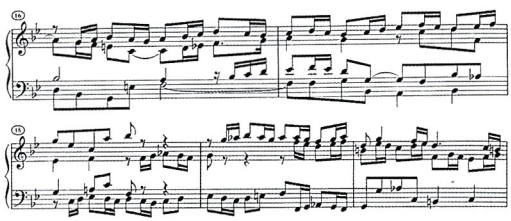
Bach had already showed a fondness for forceful endings in Book I (Ex.10):



Ex.10: Bach, WTC I, Prelude 3, bars 97-104

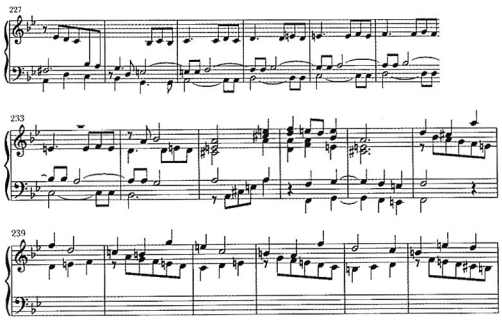
Similar instances in Book I are easily found. For example, they occur at the conclusion of the prelude in D major and both Prelude and Fugue in D minor. For purely didactic purposes, these loud endings at the conclusion of often light-textured pieces were not necessary. They open an appealing window into Bach's personality, and can be compared with the different mood which he created at other endings where no reinforcement of texture was used.

Bach, however, was not averse to introducing moments of subtle but brilliant contrast during the course of a fugue too. The four-part fugue in G minor, WTC I proceeds, for the most part, in straightforward counterpoint, where writing in four parts alternates with three. In bar 18, however, Bach suddenly lowers the tension by reducing to two parts, skilfully repeating a motif at that lower dynamic level, in order to produce a rhetorical climax on the third iteration (bar 19)– simply by adding an extra part to the treble line (Ex.11). It is remarkable how vividly a harpsichord can here deliver the effect of graded dynamics:



Ex.11: Bach, WTC Book I, Fugue 16 BWV861, bars 16-20

A similar interest in dynamic growth and decay was enjoyed by Bach's contemporary Johann Mattheson. His generally less dense counterpoint tended at times, like that of Handel, to give way to passages of secondary material. When the fugue's subject returned, it could be done in very dramatic fashion, as here, in bar 235ff (Ex.12):



Ex.12: Johann Mattheson, Fugue in C minor (Die Wohlklingende Fingersprache), bars 227-244

Tension is built by the gradual rise of the secondary lightweight material over more than a line. The first subject then suddenly returns using heavy chords with octaves in the bass. But these quickly drop away to a simple combination of the fugue's first and second subjects, played delicately in the treble. Handel often added bass octaves for grandeur within his fugues (the F minor fugue from the Eight 'Great' Suites of 1720 is a fine example), but this use of texture by Mattheson is more advanced.

Let us now pause and consider other leading composers for the harpsichord. A brief survey of French masters reveals an interesting lack of concern for this kind of dynamic variety. A dramatic use of heavy chords can be found in some pieces by Rameau, who clearly loved finishing some pieces with a descent to a sonorous bass chord. Yet even here, he seldom used more than five notes. French composers of the period show a love of grandeur (many sarabandes, like *La Lugubre*, from Francois Couperin's first book, offer splendid examples). But gradation of dynamic does not really play a part. Exceptions are hard to find, even among the most progressive composers, and in music increasingly divorced from the dance. The close of Forqueray's *La Mandoline* is possible, but I cannot detect any examples in the works of Duphly.

Perhaps the French were concerned more with 'pure' harpsichord writing, where the instrument's inherent character was exploited fully, but never 'stretched' beyond what they considered its natural limits, and their own self-conscious good taste. Their love of sonority would happily be sustained throughout a whole piece, even if the context had moved beyond conventional dance-pieces. And of course, dynamic variety would be alien to the core repertoire, which continued to be derived from the dance.

Two factors seem to underlie a greater interest in the matters discussed above. One is the date of composition: the development of music towards the end of the Baroque, gave rise to a greater concern for dynamic variation, and this extended to keyboard music, where instruments which could more readily cater for it were becoming more common. Significantly, this took place more often in Germany than elsewhere, in composition, in the widespread popularity of the clavichord, and creative organology.

Secondly, an individual composer's personality, including an interest in more advanced techniques and listening experiences, come into play. Scarlatti was a unique genius, who sought to incorporate folk elements from Spain into his Italian-derived style. In Germany, the way in which Bach's sons built upon the ideas explored by their father, and used them in a new kind of music, exemplifies this development.

This short article can be taken as a personal caution for those whose instrument has a dynamic capacity, to avoid, either consciously or accidentally, undermining a composer's careful use of notation for dynamic effect. But the ability of the harpsichord too, to convey a composer's thrilling but subtle exploration of dynamics to the ears of player and listener – if the notation is carefully observed – should not be underestimated.

Colin Booth is a recitalist and harpsichord-maker based near Wells; in 1991 he founded Soundboard Records, which has established itself as a successful specialist label and publisher. https://www.colinbooth.co.uk.

Notes

1 Colin Booth, *Did Bach really mean that?* (Wells, 2010), ch.1.

2 All of the sonatas contained in the well-known edition by Christa Landon (Wiener Urtext UT 50026/7) fall within this category. Where a 'modern' use of melodic line exists against an accompaniment, the latter is scrupulously composed, in a manner allowing the melody to be uncompromised.

3 It is also possible to discover, by analysis, graded dynamics within the Italian Concerto. Kochevitsky used the term 'inflexional dynamics', and points to the widespread use of varied texture within Bach's keyboard music to suggest gradations of volume. George A. Kochevitsky, 'Performing Bach's Keyboard Music: Dynamics – a Postscript', *Bach* vii/1 (January 1976), pp.3-11.

4 For example, Maggie Lu, 'Bach and the *Style Galant*: Progressive Elements in the *Italian Concerto*', *Inquiries* xii/12 (2020).

5 An exception can be found in WTC Book II, Prelude 18, BWV887, where sections of *piano* and *forte* are so indicated, over repeated identical material. This is a logical but advanced use of the markings, and it is quite possible that they were not Bach's own.