

Notes inégales (Fr.: 'unequal notes')

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A rhythmic convention according to which certain divisions of the beat move in alternately long and short values, even if they are written equal.

1. Definition and early history.

As it existed in France from the mid-16th century to the late 18th the convention of *notes inégales* was first of all a way of gracing or enlivening passage-work or diminutions in vocal or instrumental music. As styles changed and the figurations born of diminution entered the essential melodic vocabulary, inequality permeated the musical language. Its application was regulated by metre and note values; it always operated within the beat, never distorting the beat itself. (An anomalous instance of alteration of the beat appears in Gigault; see §2.) The degree of inequality (i.e. the ratio between the lengths of the long and short notes of each pair) could vary from the barely perceptible to the equivalent of double dotting, according to the character of the piece and the taste of the performer. Inequality was considered one of the chief resources of expression, and it varied according to expressive needs within the same piece or even within the same passage; where it was felt to be inappropriate it could be abandoned altogether unless explicitly demanded.

Inequality is usually defined as the uneven performance of evenly written values. Although the practical problem is certainly that of deciding when to alter what appears on the page, the rhythmic convention itself is independent of questions of notation. French composers frequently wrote out inequality with dotted figures, sometimes to resolve doubt, sometimes to ensure a sharply dotted effect, and sometimes for no apparent reason. Outside France, where performers could not be counted on to alter the rhythm in given situations, a composer who particularly wanted inequality had to indicate it. To insist that *notes inégales* are, by definition, always written equal is to insist that a style of performance has no existence apart from notation: that this style is, in fact, a matter of notation. It is, furthermore, to hobble and skew research in the subject (Fuller, 1981 and 1989).

Although the history of *notes inégales* may stretch back to the modal rhythms of the Middle Ages, the first explicit description was by Loys Bourgeois (1550), who explained it in its essential features as an embellishment of diminutions, linked to metre and conferring upon singing a *meilleure grâce*. Similar accounts are to be found in Spanish treatises by Tomás de Santa Maria (1565), who mentioned the short–long alteration of quavers as well as the usual long–short kind, and Cerone (1613), and there are examples of dotted diminutions in manuals by Ganassi dal Fontego (1535), Ortiz (1553), Conforti (?1593) and others. Chailley's thesis (1960) that inequality arose from French declamation cannot be sustained, since it was typically applied not to successions of syllables but to decorative prolongations of single syllables; moreover the Spaniards, whose language was spoken very differently from French, wrote of it in the same terms. Nor is the hypothesis that inequality resulted from paired keyboard fingerings (Babitz, 1969 etc.) a

plausible explanation. A closer connection exists between inequality and the tonguing of wind instruments (Haynes, 1997), but *notes inégales* did not originate with any instrumental technique. There are sporadic references to both long–short and short–long inequality in Italian sources of the first half of the 17th century (Caccini, 1601/2; Frescobaldi, 1615; Puliaschi, 1618) and brief mentions of long–short inequality by Bernhard (1657) and Burwell (c 1660–72; see Dart, 1958), but if the momentum of unequal diminution established in the 16th century continued in the art of performers of the first two-thirds of the 17th, it was largely undocumented by theorists. Parallel to but separate from the performing conventions of inequality, however, there developed a compositional, that is, a written 'dotted manner', like *notes inégales* owing its origin to Renaissance diminutions, but absorbed and transmitted through the concertato style of Monteverdi and his contemporaries and engendering a long line of sometimes obsessively dotted pieces as diverse as the second partita from Biber's *Harmonia artificiosa-ariosa*, Contrapunctus II from Bach's *Art of Fugue*, sonatas by Benedetto Marcello and even the second movement of Schumann's *Phantasie* op.17. The chief characteristic of this style is a relentless nervous energy quite unlike the grace or piquancy which is the normal effect of *notes inégales*; nevertheless there must have been some interaction between the two styles in the 17th century and it is not now possible to draw a clean line between them (Fuller, 1985).

2. French practice.

More than a century elapsed between Bourgeois' description and the next mention of inequality in French writings. In the preface to his first *Livre d'orgue* (1665) G.G. Nivers recommended that the quavers in a short fugue in the time signature c 'and other similar pieces' should be played as if 'half-dotted'. Bacilly (1668) recommended a similarly gentle inequality in divisions; and in explaining that the dotting was left unwritten for fear of tempting the singer to an excessively jerky delivery in the manner of 'the old method of singing that would be very disagreeable today', he provided us with a rare clue to what seems to have been an early or mid-17th-century style of violent inequality, at least in vocal music. Burwell around 1670 (Dart, 1958) and Perrine in 1680 provided evidence of inequality in lute music and Rousseau (1687) in viol music. Although a gradual systematization of the relationship between inequality and metre is discernible in treatises and prefaces from the last two decades of the 17th century, rules were slow to evolve, partly as a result of uncertainties concerning metre and measure – reflected in a chaotic treatment of barring and signatures – at a time when the transition from Renaissance mensuration to modern metre was not quite complete. The modern performer cannot depend on a code that was not yet fully formulated for decisions about inequality in the music of Lully, Charpentier, Louis and the young François Couperin, the young Marais, Mouton, Grigny and others at the pinnacle of French classicism. It is particularly the 'quarter-beat rule' in c (see below) whose application is uncertain. Nivers was not the only one to suggest unequal quavers (i.e. half-beats) in that metre; Jullien (1690) did the same. Loulié admitted them ('sometimes' in 'any' metre) and some scores seem to demand them – notably the offertory from François Couperin's *Messe des paroisses* for organ (1690). Rousseau (1687) was the first to say that quavers were equal in c ; he also said that one should 'mark' the odd-numbered semiquavers. It is not clear, however, that 'mark' meant 'lengthen' here; it may simply have meant 'emphasize'. Saint Lambert (1702) wrote explicitly of making quavers alternately long and short except in c , where it was the semiquavers that were unequal.

A collection of 180 organ pieces from 1685 by Nicolas Gigault (c 1627–1707; said to have been one of Lully's teachers) amounts to an encyclopedia of applied inequality for this period. The inequality is completely written out with dots but is presumably meant to be treated flexibly according to the expression of the music. The rhythms have been discussed in detail and the arguments presented for accepting this dotting as notated inequality by Pyle (1991) and Fuller ('Notes and *inégales*', 1989 and 'Gigault's Dots', 1994). The most important general observations are: (1) Inequality is the norm for the principal moving values of a piece or passage and even motion the exception. (2) Dotting is applied to the half-beat (quaver) in two-thirds of the pieces in c (providing further evidence that the 'quarter-beat rule' was not yet solidified). In two pieces in c it is applied, exceptionally, to the beat itself (crotchet) – this in addition to the usual application to semiquaver motion (quarter-beats) under this signature. (3) Dotted and even notes of different values and in different parts are freely mixed. As melodic motion shifts from one value to another (e.g. to a passage in semiquavers in a predominantly quaver motion) or from one part to another, the dotting may shift with it. (4) Even notes may be introduced for short passages or a whole section, apparently for the sake of variety and contrast. (5) Dotting is not affected by the intervallic character of the melodic movement: wide leaps are dotted as well as stepwise movement. (6) Except in crotchet motion in $6/4$, the first note of a ternary group is normally dotted. (7) Syncopated notes are not normally dotted, though there are exceptions. (8) Slow accompaniments to expressive *récits* are usually undotted, though imitations of the solo will preserve the solo dotting. (9) *Contrepoint simple* (chordal texture) is not dotted. (10) A four-part *Fugue poursuivie à la manière italienne* (68 bars of densely imitative, more or less *stile antico* counterpoint) is not dotted. There appears to be some connection between learned counterpoint and even rhythm in this collection, though it is not consistent. (Gigault's music shows no trace of the Corellian style that was felt later by most to be incompatible with *notes inégales*; Corelli was only just becoming known in France in the 1680s.) The most illuminating and useful observations concern reversed, or short–long inequality, a subject touched only glancingly by writers. It is found in a little over a third of the pieces, under any signature, in any part and in any style, as occasional and unpredictable rhythmic 'seasoning', most often as a single instance of semiquaver–dotted quaver, rarely demisemiquaver–dotted semiquaver. Two short–long figures in a row always descend scalewise and are most characteristically found in ' c 3' ($3/4$ time). If there are three, the last two descend scalewise. Only when short–long figures are part of a fugue subject do they dominate the movement of a piece.

Towards 1700, this fluid approach to inequality began to crystallize into a set of rules. These are found first of all in performance manuals in connection with *mesure*, i.e. time beating and metre. The manuals describe in varying detail what note values were normally unequal and occasionally under what conditions. The number, distribution and consistency of these accounts show beyond any possible doubt that inequality was a normal component of musical instruction in France in the 18th century. Further explanations and examples exist in dictionaries, treatises and *avertissements* to editions. The note-by-note treatment of whole pieces can be studied on barrel organs and in instructions for making them. The scores themselves supply examples of notated inequality and written directions for the treatment of particular pieces. Finally, dotted and undotted versions of the same passages may be taken as evidence that the undotted versions were dotted in performance, even though other explanations (such as a change of mind) cannot be ruled out.

The code that emerges from the many dozens of French manuals and treatises that appeared between about 1700 and the Revolution seems at first acquaintance to be remarkably uniform, rational and even 'scientific'. The uniformity extends over all media; there was, astonishingly, almost no evolutionary change from the 1720s to the 1770s to match the innovations in compositional styles and the changing play of foreign influences. These books, however, were addressed to children, amateurs and their teachers: they vary enormously in completeness and competence; they are rarely concerned with the analysis and description of professional performance; and they rarely answer any but the easy questions, leaving to the instructor or to that imaginary oracle, *le bon goût*, the hard ones, such as how unequal the inequality should be, whether it should be consistent and above all, what to do when passages of apparently redundant dotting are mixed with plain notes that the rules say should be played unequally. (See below for further discussion.) Not all performing treatises of the period dealt with the question of inequality, but the ones that did (the majority of those for voice and strings, especially during the middle 50 years of the 18th century) concerned themselves chiefly with listing the note values that were equal and unequal in the different metres; it is this aspect, in which there is (with certain exceptions) general agreement, that lends them an air of authority and system. These lists run to as many as six values and 20 signatures, many of them purely hypothetical (Borin, 1722), seemingly designed as much to impress as to instruct; Dard (1769) specified unequal hemidemisemiquavers in 2/16. In many cases this is all we learn, as if the listed values were unequal in all circumstances without regard to style or expression. In others, inequality is associated with certain genres, ways of cancelling it are described, triplets are mentioned and other problems are discussed, but sporadically and with much disagreement among sources. Many of the treatises rely on great numbers of exercises (*leçons*) with little or no explanation, on the probable assumption that they were to be mastered with the help of a teacher. A few writers discussed one or two aspects – never all – in depth and with intelligence: these included Démoz de La Salle (1728), La Chapelle (1736–52), David (1737); Vyon (1742 and 1744, with an unusual wealth of examples from major composers), Denis (1747, 1757), Labadens (c 1772), Azaïs (1776) and Mercadier de Belestia (1776). Some, such as J.-J. Rousseau (1768), went no further than to say that in French music one always dotted quavers a little except in *c*.

The core of the doctrine was what one might call the 'quarter-beat rule' for duple metres; for triple or compound metres, the rule (never summarized in these terms) was that notes whose value was half the smallest value grouped in three were unequal. Occasional disagreements arose from continued differences about how time was beaten. In simple metres with two or four beats to the bar, notes of the value of a quarter of a beat or less were unequal. Thus quavers were unequal in 2 (2/2) and in ♩ when taken in two beats, and semiquavers were unequal in *c* (4/4), ♩ when taken in four beats, also in 4/8, which was taken in two beats. Semiquavers were unequal in 2/4 according to most writers, though Loulié (1696) specified unequal quavers.

In the 17th century the time signature '3' could mean any simple triple metre. In the 18th it usually meant only 3/4 and implied the French style; the signature '3/4' was associated at first with Italian style and therefore could be taken to exclude inequality, but as '3' dropped out of use '3/4' gradually lost this connotation. Triple metre could be taken (as today) in one or three beats, depending on the tempo, or in two unequal beats. 6/8, 9/8 and 12/8 were beaten in two, three and four respectively. No matter how beaten, however, in triple metres values of half the denominator were normally unequal. The principal exceptions were courantes in 3/2, in which quavers, not crotchets, were unequal, and sometimes 3/4,

which a few writers of the mid-18th century distinguished from 3 in specifying equal quavers and sometimes unequal semiquavers. 'Croches blanches' (whitened quavers and semiquavers with the value of crotchets and quavers) had no special rhythmic significance, as far as can be determined (for three pieces in this notation see *Les folies françoises* in François Couperin's *Troisième livre*, 1722). Underlying all these rules was probably the assumption that the principal unit of melodic movement in a piece corresponded to the theoretically unequal one for that metre. If there were smaller values, they became unequal; this might be called the 'rule of descending inequality'. There was disagreement, however, about what happened to the original values. Some said they became equal, as would appear logical if they occurred simultaneously with the smaller ones in another part. But Morel de Lescer (c 1760) gave examples of melodies with mixed unequal values: in a very slow 3/2, 'crotchets and quavers are unequal'; in 6/4 with *mouvement marqué*, 'quavers and semiquavers are unequal'. Inequality did not (at least in the 18th century) move up to values larger than the theoretically unequal ones. A useful table summarizing the unequal values for each metre in a selection of sources throughout the period of these manuals is given by Neumann (1965, p.322; reproduced in Hefling, 1993).

It is extremely difficult to evaluate the roles of theory and practice in all of this. To some extent writers were trying to describe usage in a number of well-defined rhythmic styles, each associated with a certain metre and genre. The rules themselves must have influenced practice to some extent among the musicians who grew up with them. But there are many references to how hard it was to give general principles (e.g. Bailleux, 1770) and to the fact that style and taste were the final arbiters. Occasionally an author spelt out exceptions, as did Démoz de La Salle (1728, p.166):

In the expression of declamatory *airs*, in recitatives, or in solos [*récits*] measured in two or three simple beats, theoretically unequal quavers are very often performed equal according to the expression of the words and the style of the melody. And in recitatives, bass solos, or other [pieces] measured in four simple beats, quavers which are naturally equal in their motion are, on the contrary, often sung unequal, also according to the style of the melody, and according to how regularly these kinds of *airs* are written and how well they express the text.

What is certain is that inequality suffused French thinking about performance, in which it constituted one of the most important and difficult questions. Borin (1722, p.26) summed it up: 'Expression ... consists principally in knowing what notes are equal or unequal'.

The careful composer who wished to ensure inequality or equality in doubtful situations used symbols or written directions. The dot of addition was the usual sign for inequality; very occasionally, in order to suggest gentle inequality, there was no compensatory shortening of the second note of the pair (Nivers, 1667; Perrine, 1680). The reasoning of Bacilly (1668) with regard to dots has been noted above: they were normally left unwritten in order to avoid tempting the player to jerkiness. He explained written dots in a particular example, however, as a warning 'not to omit them in singing, which would [otherwise] lack all grace' (p.233). La Chapelle (i, 1736), on the other hand, said that dots indicated a greater inequality than usual: to perform plain semiquavers and demisemiquavers in ϵ 'one dwells on the first and takes the second quickly, but when they are dotted one dwells a little longer'; the reason for dotting is 'to indicate those on which one should dwell the most'. The symbol for equality was dots over the notes (hereafter

'equality dots'); strokes meant equal and staccato. The simplest written directions were 'notes égales' or 'croches égales' to cancel inequality, and 'pointé' (sometimes qualified) to ensure it. Most other terms are ambiguous. 'Piqué' as an adverb heading a piece meant sharply (over-)dotted; as an adjective, 'notes piquées', it meant staccato (Rousseau, 1768, 'Piqué'). The expression 'passer les croches', whose strict meaning in this context is simply 'execute the quavers', was used on rare occasions to mean 'execute the quavers unequally'. 'Louré' meant slightly unequal to Loulié but legato and in the style of a loure (the dance or bagpipes) to others. 'Mesuré', 'marqué' and 'martelé' had meanings of their own which might or might not imply equality in a given situation. 'Gracieusement' probably implied inequality where metre and note values permitted.

There was a broad but variable and inconsistent association between articulation and equality or inequality. Detached delivery was associated with equality, as reflected in one or two cases by the use of the term *notes détachées* as a virtual equivalent for *notes égales* (e.g., Labadens, c 1772), more often in scattered remarks and music examples in treatises. (*Détaché* meant detached by silences, not the modern string *détaché*, for which Labadens's idiosyncratic term was *notes articulées* or *notes assemblées*, and which demanded inequality.) The association of connected delivery with inequality was mostly implicit in the treatment of equality as an exception imposed by detached or *marcato* articulation. The relationship between intervals and inequality was more complicated. In the 18th century inequality was associated with conjunct motion. A few writers (e.g. Couperin, 1717) said so explicitly, and examples of inequality given in the treatises are usually conjunct. It followed that disjunct motion was equal, but statements to that effect are rare. Montéclair gave a rule of restricted application: 'When the melody proceeds by disjunct intervals, the quavers are ordinarily equal in 3/4' (ex.1).

Ex.1 Montéclair: *Nouvelle méthode* (Paris, 1709), p.15



Ex.1 Montéclair: *Nouvelle méthode* (Paris, 1709), 15

This was partly a matter of style: the lines in the new Italianate string music were typically far more disjunct than traditional French melody – much more likely to outline chords or imply two parts by leaping between them – and Italian music was (according to most but not quite all) played as it was written. Even when the motion in a recognizably Italian style was conjunct, it was still equal, especially the walking basses imitating those of Corelli's *grave* movements and much cultivated by Couperin and others. Batteries (arpeggios, broken-chord figures, rapid repeated notes, *bariolage* and similar string effects), Alberti basses and similar keyboard accompaniments, all were played evenly. A whole vocabulary of analogous keyboard figuration invented (according to his own claim) by Rameau and imitated to excess by his followers, involving throwing the left hand back and forth over the thumb as well as rapid alternation of the hands, also demanded equality, if only because of its speed (e.g. *Les niais de Sologne* and *Les cyclopes*, 1724, and the *Gavotte avec 6 doubles*, c 1729–30). The difficulty comes when leaps or arpeggios occur in music that is not obviously Italian. The 17th and early 18th-century repertory for bass viol includes much highly disjunct melodic writing. This was imitated in organ music in the 1650s by Louis Couperin (also a viol player) and

cultivated by French organists for 100 years. As has been noted above, Couperin’s contemporary Gigault, who did not, to be sure, compose division basses, dotted the most extravagant and rapid leaps without hesitation. Yet it is by no means clear whether this sort of inequality extended to other and later genres.

Only the most careful composers made their intentions clear regarding exceptions to the metrical rules. Cappus (1730) observed after explaining ‘equality dots’ that ‘it would be desirable if all composers took this trouble’ (pp.16–17). François Couperin, who considered the French habit of writing one rhythm and expecting another a ‘defect’, indicated exceptions only sporadically and inconsistently. In ex.2, from a piece (one of *Les folies françaises*) whose main idea is the contrast between equal and unequal motion, redundant dots of addition are used for passages that would normally be unequal anyway and ‘equality dots’ are placed over the plain notes, even though their equality could have been inferred from the surrounding dotting or the disjunct intervals. His *Les guirlandes* (*Quatrième livre*, 1730), a long piece in 2/4 time moving throughout in semiquavers, is dotted in the predominantly disjunct *première partie* (in which there is much leaping between the parts) while the conjunct *deuxième partie* is undotted (the equality is emphasized by the heading *coulament*: ‘flowing’), thus reversing the usual relationship between intervals and inequality. In Rameau’s magnificent A minor Courante (ex.3), where metre (effectively 6/4) and the predominantly conjunct motion decree *notes inégales*, 15 or so arpeggios suggest *croches égales*. Does one change back and forth according to the intervals? Or is the whole piece either equal or unequal? Rameau’s own arrangement of *La Livri* from his *Pièces de clavecin en concerts* (1741) in *Zoroastre* (1749) shows that unequal performance of such arpeggios was not unacceptable to him; it may suggest but does not prove that he expected them to be played unequally in *La Livri* or the Courante (figs.1a–b). Ex.4 shows a type of figuration often introduced during the course of chaconnes and *passacailles*. Corrette (1741) and others cited it as cancelling inequality of the quavers (which would in any case be impossible on account of the bass line) but they did not say whether in this case the semiquavers would become unequal in accordance with the ‘rule of descending inequality’.

Ex.2 F. Couperin: *Pièces de clavecin, troisième livre* (1722), ‘Les vieux galans et les Trésorietes surannées’



Ex.2 F. Couperin: *Pièces de clavecin, troisième livre* (1722), ‘Les vieux galans et les Trésorietes surannées’

Ex.3 Rameau: *Nouvelles suites de pièces de clavecin* (Paris, c1728),
Coutante p.4



Ex.3 Rameau: *Nouvelles suites de pièces de clavecin* (Paris, c1729–30)

Ex.4 Lully: *Armide*, passacaille, Act 5 scene ii



Ex.4 Lully: *Armide*, passacaille, Act 5 scene ii

Modern discussions of inequality often list additional contra-indications which are either based on a single, sometimes dubious source or are outright fabrications: the presence of syncopated notes (Lacassagne, 1766, as reported in Borrel, 1934); the presence of rests of the same value as the notes in question (Borrel); the fact that the notes are in an accompanying part (Emy de l'Ilette, c 1810, as reported in Borrel); allemandes (Dolmetsch's misreading of the sources, 1915); repeated notes, slurs over more than two notes, and motion that is too fast (Quantz, 1752, as reported by Borrel and others); motion that is too slow (Saint Lambert, 1702, as reported by Donington, 3/1974). None of these has the force of a rule and most are refuted by sources. Only the long slur seems at times to be intended to cancel pairing and to suggest to the player that only the first note should be emphasized.

The theory has been advanced that dotting the approach to a cadence compensates for an otherwise unrecorded convention of easing up on inequality at the ends of sections (Newman, 1992). Occasionally in French music (and elsewhere, notably in music by Handel) there are dots in the first bar or two of a piece which disappear thereafter, even though the same theme or figures continue; in such cases the dotting is meant to continue as well, according to one or two theorists. That *notes inégales* entailed overdotted is confirmed by at least four French theorists (see Hefling 1993, p.68) and implied by many more. In ex.3, if the running quavers are unequal, then the quaver–dotted crotchet figures would be overdotted. Such

overdotting is not dependent on inequality in an accompanying part to 'legitimize' or measure it, however, since the dot itself (or a rest of the same value) is counted as the first of an unequal pair. It is governed by all the considerations that affect inequality in general.

Reverse inequality or 'Lombardic rhythm' (i.e. short–long alteration) had a shadowy existence in French theory. Its use by Gigault has been described. It was mentioned as an afterthought by Loulié (1696, p.71) that in 3 (3/4) the first halves of beats may be made shorter than the second halves. François Couperin's sign for it was a dot over the second of two slurred notes. His heading 'pointé–coulé' for a *courante à l'italienne* (*Concerts royaux*, no.4, 1722) has been cited as a direction for reversed inequality. It is possible that plain slurs over pairs of notes, particularly if they descend stepwise, were sometimes meant to be read as reversed inequality. Couperin's example and explanation were copied by Pierre–Claude Foucquet (*Les caractères de la Paix*, 1749), while Dupuits (1741) used a slur with the dot over the first note. Both signs are extremely rare.

According to most descriptions, the degree of inequality ranged from that of a pair of notes of which the first was 'a little longer' than the second through 'almost as if it were dotted' to the 3:1 ratio of normal dotting. Couperin asked for semiquavers in a harpsichord *Allemande* to be 'un tant–soit–peu pointées' ('very slightly dotted'; *Premier livre*, 1713). But an anonymous, late 17th–century manuscript treatise seems to go well beyond 3:1 ratio: in a very slow–moving organ trio, 'dotting must be executed with great fire and boldness, because it is the piece that most needs to move, and only dotting will do it ... thus one cannot dot it too much' (see Pruitt, 1986, p.247). Although sharp overdotting was certainly not what was ordinarily meant in the descriptions of *notes inégales*, its occasional use is implied for the earlier 17th century by Bacilly (cited at the beginning of this section) and later by use of the direction 'piqué'. It may also be what was intended for certain pieces (such as ex.2 and *Les guirlandes*) with written dotting of values that would be played unequally even if undotted. For the only French attempt at the analysis of actual performances, including the variable ratios of long to short, one must turn to Engramelle (1775) and his chapter in Bédos de Celles (1778) on the pinning of barrel organs, where he described a method of obtaining ratios of inequality as subtle as 9:7. Such ratios – sometimes varying in the same piece – can be heard on surviving instruments, mostly in clocks (Fuller, 1979 and 1980; Houle, 1987, p.120). Cossart–Cotte (1969) found only one example of unvarying inequality in 500 samples taken from late 18th–century barrel organs. Although some of this irregularity was doubtless caused by faults in the mechanism or carelessness in pinning the cylinders, it is likely that much of it was intentional. Inequality not only varied in sharpness, it came and went altogether, as in ex.2.

The alteration of ternary groups was generally discouraged, most writers who discussed them at all expressly excluding it from triplets or the quavers in 6/8 etc. But Mercadier de Belestia (1776) and a few others allowed the first note to be lengthened at the expense of the second, producing the rhythm of a French gigue. According to Cappus (1730), quaver triplets were 'most often' even, but 'it sometimes happened' that they were played 'as if the last two quavers were semiquavers, or finally, as if the first had a dot and the second were a semiquaver'. A topic which is often improperly included in discussions of *notes inégales* is the assimilation of duple to triple rhythm (see Dotted rhythms). That this was a widespread habit in all countries in the Baroque period cannot be disputed. But there is a fundamental difference between this kind of alteration and *notes inégales* as defined in this article. The long–short pairing that

results cannot vary with the requirements of embellishment or expression, since it must be synchronized with a rhythm that already exists elsewhere in the texture; it does not add a fresh nuance; and its origin and purpose are different (see Collins, 1966). The performance of gigue in 4/4 time or other duple metres raises problems of rhythmic alteration which are again not those of *notes inégales*. Such gigue are common in mid-17th-century French lute music where they are closely related and sometimes identical to the allemande; they are also found in English, French and German sources later in the century and beyond, the best known being those in Bach's First French Suite and Sixth Partita for harpsichord. The only French theoretical source to discuss them says that they can be 'very easily reduced to 3/4 or 3/8, which may suit them better' [than duple execution]. It adds a caution that could be applied to the whole subject of rhythmic alteration: 'to understand this kind of gigue properly you must have played or heard one' (Cleret fils, 1786, p.407; see also McIntyre 1965).

The classification of notes into metrically strong and weak ones was a feature of music theory in all countries throughout the 17th and 18th centuries and has occasioned enormous difficulties for those who argue about *notes inégales*. Notes on first beats, first parts of any beat, or first parts of parts were strong in relation to a succeeding note of similar value. Thus notes whose value was half that of the next larger metrical unit (this would exclude, for example, quavers in 6/8) proceeded in strong-weak pairs beginning at the bar-line. At first glance the system appears to have much in common with the convention of inequality, but the differences are fundamental. The strong-weak classification applied to notes of almost any value in any style, and it was an analytical distinction independent of performance. The terminology varied: the French said 'first' and 'second' or 'strong' and 'weak'; the Italians 'good' and 'bad'; the Germans any of these and also, after Printz (1668), 'intrinsically long' and 'intrinsically short'. Walther's explanation ('Quantitas notarum', *Musicalisches Lexicon*, 1732) of these last invites misunderstanding: 'according to [its extrinsic quantity], each note is equal in length to similar ones in performance; according to [their intrinsic quantity], however, [the notes are] of unequal length' – i.e. they are defined metrically as long and short even though they are played equal (for the opposite interpretation see Collins, 1967, p.483). French writings on inequality did not normally appeal to the strong-weak distinction to explain the phenomenon, but Mercadier de Belestia (1776), after a very lucid presentation of strong-weak, continued with a kind of transition to the usual rules for *notes inégales* (p.67, ¶151) that suggests a connection. Nevertheless, inequality was restricted in its application, decorative or expressive, and easily heard, while the strong-weak distinction was universal, structural, and did not need to be heard at all, though attention to it enhanced performance.

Except for scattered echoes, *notes inégales* disappeared from French theory and pedagogy towards the end of the 18th century; the rhythms persisted, however, in performance and composition, particularly in opera and military music, and not only in France. What changed were musical styles and attitudes to notational exactitude. But even while the practice of inequality was still alive, an ambivalence about unnotated dotting cropped up occasionally, and nowhere more strikingly than in the anonymous treatise here tentatively ascribed and dated as ?Labadens (MS, c 1772, *F-Pn*). After stating that 'articulated [here meaning 'connected'] notes are always alternately ... long and short', the author continued in the following paragraph: 'The principle of making audible ... the longs and shorts, being contrary to the rules of good taste, should only be used in learning the music, to distinguish essential from passing notes No more should one make the notes unequal unless their values are different [the redundancy results from the

careless handling of the distinction between 'intrinsic' and 'extrinsic' quantity]; there are, however, many passages in a given piece of music where one should make articulated notes unequal without it being indicated, but this knowledge is only acquired by experience'.

3. Application outside France.

Whether the conventions of *notes inégales* should be applied to the music of non-French composers, particularly J.S. Bach, is a question which has engaged the attention of scholars and performers ever since Dolmetsch (1915) recommended it for parts of Handel's *Messiah* and Bach's *St Matthew Passion*. After World War II a number of writers (Babitz, Donington, Dürr, Geoffroy-Dechaume, Sachs and others) took up and enlarged on Dolmetsch's views, analysing early fingering, bowing and tonguing, amassing instances of passages in both dotted and undotted versions, and combing the theorists in order to show that inequality was a normal resource of Baroque music in all countries (though not in all styles), and therefore that one might, should or must – depending on the recklessness of the argument – sometimes alter evenly written notes in non-French music. Then Frederick Neumann (1965) dismantled the entire structure of post-Dolmetsch research on inequality, piece by piece. This unleashed a controversy lasting several years during which the 'left', represented chiefly by Donington, Collins and Babitz (in order of increasingly vehement advocacy of a broad application of *notes inégales*), were stimulated to uncover a great deal of new evidence in their favour, while Neumann on the 'right' resolutely defended Germany and Bach against the alien taint by discrediting their authorities and refuting their evidence. The battle – which seems to have engaged the passions of few outside the English-speaking world – never entirely died down, and it flared up again in 1988, reaching a climax with the publication of Hefling (1993), which occasioned an acrimonious exchange whose resonance continued beyond Neumann's death and had not ended at present writing (1999). The entire controversy, though distorted by arbitrary assumptions on both sides (especially the assumption that *notes inégales* are by definition written equal) and weighted down by futile struggles over isolated authorities such as Quantz, is indispensable reading for anyone wishing to pursue the subject.

The real issue was not whether Bach and other non-French composers used *notes inégales* – countless scores show that they did. Although never clearly stated, the issue was rather whether they ever failed to write them out when they wanted them. The evidence is different for different countries. Purcell's normal treatment of running quavers in 3/4 time was to dot them (examples include 'Thou tun'st this world' and 'The Airy Violin' from the *Saint Cecilia Ode*, 1692). English harpsichord music from Locke onwards is full of written inequality, most commonly in preludes and allemandes (Alcock, Clarke, Croft, Felton, Gunn, Richard Jones, Moss, Nares, Roseingrave [Introduction to Scarlatti's sonatas], J.C. Smith, Symonds); pieces by G.B. Draghi and Handel (e.g. the opening movements of the sixth, seventh and eighth suites of the *Suites de pieces pour le clavecin*, i, 1720) are in this tradition. But unwritten inequality too is suggested by multiple versions of pieces from Jenkins to Handel (Johnson, 1967, found that the most frequent discrepancy in mid-17th-century English ensemble manuscripts involved even quaver figures in one source appearing as dotted figures in another), and dotting was explicitly recommended by Burwell and North – 'tho' not express'd', to give 'a life and spirit to the stroke' (see Wilson, 1959). Whether these references are to isolated pairs or continuous inequality is not certain; but Corrette (1740), who had been to England, clearly

meant the latter when he stipulated that quavers were to be dotted in English 'vaudevilles and contredances' in 6/4, such as *Bartholomew Fair*, *Hunt the Squirrel*, *Lilliburlero* and *Hoopt Pettycoat*. Versions of pieces by Handel for automatic instruments also show some added inequality, both in the scores (Squire, 1919) and on the instruments themselves, for instance the last movement of op.4 no.2 on a late 18th-century barrel organ (Fuller, 1974 and 1980). In 1771 Anselm Bayly advised unequal quavers as possible in an anthem by Greene (see Pont, *JAMS*, xix, 1966).

The French influence was strong in the low countries, not only in French-speaking regions but among the Dutch as well, as can be seen from the correspondence of Constantijn Huygens from the mid-17th century and the activity of the Amsterdam presses later on. A treatise in Dutch by Frischmuth (1758) specified unequal semiquavers for allemandes and unequal quavers for courantes.

French dance music had become thoroughly naturalized in Italy by the 1660s, as specific labels and styles of pieces by Uccellini, Giuseppe Columbi, G.M. Bononcini (i) and G.B. Vitali show – the aria and allemande especially being frequently dotted (Klenz, 1962). The recommendations of Frescobaldi and others have been noted. Lorenzoni (1779), who cited Loulié, Rousseau and Quantz, recommended normal inequality to enhance the distinction between 'good' and 'bad' notes, and many more clues to rhythmic alteration have been collected by Collins, Pont, Donington and others. But none of this adds up to an expected norm of inequality, and certain typical italianisms expressly demanded that at least the quavers should be even, as in 'walking' basses and vigorous allegros. French authors disagreed with each other and sometimes with themselves about Italian music. In *L'école d'Orphée* (1738) Corrette said of the metre ♪ that it was 'much in use in Italian music The quavers are played equal and second semiquavers are hurried'. A similar rule (i.e. specifying unequal semiquavers) was given for 3/8 time, and Handel, Giovanni Bononcini, Pepusch, Alessandro Scarlatti and Porpora were cited for examples. At the same time the French 3 with unequal quavers was distinguished from the Italian 3/4 with unequal semiquavers. In Corrette's flute tutor (1740) the wording was much the same, except that 'semiquavers are also sometimes played equally in the allegros and prestos of sonatas and concertos'. In his cello method (1741) the reference to unequal semiquavers in 3/4 was dropped, and the courante from Corelli's op.5 no.7 was cited as a piece in 3/4 where the quavers must be equal – not a contradiction but a shift of emphasis.

Loulie (1696), Brossard (1703) and Rousseau (1768) excluded inequality from Italian music; others besides Corrette seem to admit it (Mussard, 1779; Rollet, 1760). Azaïs (1776) wrote that foreigners in France played unequal quavers in 3/4. The uncertainty about foreign music must have reflected a diversity of practice among musicians in Paris. There are so many imponderables – not least the possibility that some visiting Italians may have tried to please French audiences by adopting their style of playing – that it is advisable to keep an open mind on the subject. In French music composed under Italian influence the situation was still more complicated, as there were real efforts at stylistic synthesis from Lully onwards. What Couperin expected from his players in *Les goûts réunis*, an essay in the combination of French and Italian styles, and what Mondonville meant when he wrote that in his *Pièces de clavecin avec voix ou violon* (1748) one must 'distinguish the phrases which are in French style from those which require the Italian style', are among the problems posed.

French dancing-masters, musicians and their music spread over Germany from the early 17th century, and knowledge of French performing style kept pace. In 1664 Johann Caspar Horn published five ballets 'to be played in French style', and much later Marpurg (1749) remarked on how Quantz, Benda and Graun played 'in a very French manner'. Georg Muffat (1698) explained *notes inégales* clearly and authoritatively to the Germans, and direct French influence on Froberger, Küsser, J.C.F. Fischer, J.S. Bach and a legion of others is documented. (It is worth noting, however, that when Bach and Walther copied Grigny, Le Roux, Dieupart and Clérambault, they did not translate *notes inégales* into dotted notation.) The French overture became an obsession; Telemann is estimated to have composed some 1000 overture-suites. Yet although Printz (1678) recommended inequality as a device to keep the tempo under control, and C.P.E. Bach (1753–62) as a way to treat two semiquavers following a quaver in the accompaniment of an adagio, only one German writer besides Muffat treated the convention in terms approaching those of the French, that is, as a normal way of playing a substantial amount of music; this was Quantz (1752). As he did not say that his remarks applied only to French music – indeed they include no mention of French music at all – his passage has acquired a kind of scriptural status for those who wish to alter even rhythms in Bach, and it has become a principal target of attack by the right. But even the most subtle exegesis cannot make Quantz say that Bach wanted his rhythms to be altered in performance; the most that can be concluded is that Quantz himself might have played Bach that way, and perhaps that the trio sonata from *The Musical Offering* was subjected to inequality when (or if) it was played at Potsdam. On the other hand the best efforts of a Frederick Neumann can produce nothing but silence to prove that Bach did not want alteration.

The ubiquity of *notes inégales* in French performance of the 17th and 18th centuries is beyond dispute, yet at the end of the 20th century there was still, even among the most brilliant and historically informed specialists, a reluctance to apply them with anything resembling the frequency with which all the evidence indicates that they were applied in earlier times. The visceral revulsion felt by the great musicologist Charles Van den Borren (1936) when he declared himself 'literally overwhelmed at the thought that anyone could reconcile the finicky requirements that Muffat [1695] enumerates with the style, so simple so sober, so genuinely inspired by the *grand siècle*, that Lully offers us throughout his work', and in particular, at 'that deformity, devoid of logic, which consists in the unequal performance of equal quavers' (a revulsion that informed the researches of the indefatigable Frederick Neumann) still inhibits efforts to discover the elixir of vitality that must have enlivened the old performances. The favourite recipe in recent years has been sheer velocity. The secret must lie elsewhere, however: in the subtlety and variability that is only hinted at in the verbal descriptions but is made more concrete, if crudely, in automatic instruments. As noted below, something comparable may be heard today in jazz, but the incorporation of *notes inégales* into the performance of early music can only be accomplished by experimentation, and specifically through practice in executing ratios of long to short that are less or much less than the 3:1 of strict dotting and then in varying these ratios in response to the expression. Sharper inequality should not be neglected, but it is much easier.

Modern discussions of inequality in Baroque music often conclude with an appeal to 'good taste' as the final arbiter in good performance. The idea comes directly from innumerable similar appeals by 18th-century French writers, and is dangerously misleading. It is indeed taste that decides, but the taste of the period when the music was written. Alien taste is laboriously acquired, and never completely so except by imitation; one need only imagine with what degree of authenticity some future musician might succeed in

reproducing the 'taste' of a Charlie Parker from written documents alone. Taste is the most inconstant of values, and it was a conflict of taste far more than of objective findings which lay at the root of the inequality controversy of the 1960s and fuelled its partisan zeal.

4. Jazz.

Notes inégales may have lived on in France after the 18th century in the semi-popular styles of *opéra comique*; in any case they reappear in a context far removed from the elegance of the *ancien régime* (though not nearly so far from the French opera of New Orleans) – in American jazz. Here they permeate a living tradition of improvised diminution whose rhythmic conventions are remarkably reminiscent of the old French code. Jazz is organized rhythmically in layers corresponding to chord changes at each half-bar or larger unit, a crotchet beat, and a melodic line in mostly smaller values. Inequality operates only at the last level but there it was until the 1940s, and with many players still is, virtually omnipresent on duple subdivisions of the beat, even when the motion is extremely rapid. As with the old code, the degree of inequality is freely variable from extremely subtle to pronounced. But with the exception of triplets, quintuplets etc., which are played evenly, strict equality must be expressly demanded in a written part by some direction like 'straight eighths' – an exact American equivalent for 'croches égales'. The peculiar syncopation so often cited as characteristic of jazz is the result of a rhythmic shift of the syncopated note corresponding to the displacement of metrically weak values caused by the inequality. In the 1940s, with the style known as 'bebop', the second note of a pair was often deliberately accented; later this effect was mixed freely with other dynamic shapings. Although 'solos' are improvised, they are often transcribed from recordings for purposes of study and teaching; such transcriptions rarely show the inequality, and yet no musician would think of playing the notes in their exact values. To do so would negate the style of the music.

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