

RECUPERATION, TRANSFORMATION AND THE TRANSCENDENCE OF MAJOR OVER MINOR IN THE FINALE OF HAYDN'S STRING QUARTET OP. 76 NO. 1

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ABSTRACT

When the French critic Bernard Germain Lacépède identified minor harmony with inner pain, restlessness and torment (La poétique de la musique, 1785), he was recognizing what had evolved as a lopsided dichotomy within the tonal system: rather than viewing major and minor as equivalent, mutually defining opposites, later eighteenth-century musicians often viewed the latter as a site of disturbing associations and thus potentially problematic as the foundation for large-scale instrumental compositions. Against this backdrop, it is notable that Haydn ended most of his later minor-key works in major, and in the finales of his quartets Op. 76 Nos 1–3 he exploits modal reversal as a special theme by having each begin in minor before undergoing an artfully contrived switch to major. Because the tonality of two of these quartets was major to begin with, Nos 1 in G and 3 in C, this entailed a double reversal: from major to minor as the finale began, from minor to major at a crucial moment prior to the end. The finale of Op. 76 No.1 surpasses the others of this group in tonal range, intricate play of symmetries and palpable connections to its preceding movements. Crowning it is a coda that turns the movement's stark opening unison into a cheerful rustic tune. Thus opening theme and coda, although diametrically opposed in topic and imagery, are heard to share the same underlying identity. The result may be read as a vividly evoked musical subject whose vicissitudes trace a path from darkness to light, from turmoil and confusion to a state of pastoral joy and contentment.

What was there about minor tonality¹ that so affected the sensibilities of late eighteenth-century listeners and that prompted composers to be so wary of its use? One critic, Bernard Germain Lacépède, was moved in his 1785 *La poétique de la musique* to conclude that the most the minor mode could offer was a 'somewhat impaired consonance', whose melody and harmony constituted a source of 'inner pain'.² In his view:

When the soul listens to the minor mode it is never satisfied, nor can it ever be. It is always wishing for something, and even the most final ending of a piece always leaves something to be desired . . . The ear is only fully satisfied when it is presented with a piece of music that is constructed of perfect consonances similar to those that nature herself produces. All other consonances are only conceived and used to throw into relief the natural and fundamental consonances. The soul is unsettled at the sound of these others, or if at times it does take great pleasure in contrived

1 As used in this essay, 'minor tonality' applies to an entire composition or movement cast in minor at the outset, 'minor harmony' refers generally to manifestations of minor, whether as a chord, a passage, a key or an abstract concept, and the terms 'minor mode' and 'major mode' are used to distinguish between major and minor forms of a given tonal centre.

2 Bernard Germain Lacépède, *La poétique de la musique*, 2 volumes (Paris, 1785; facsimile reprint, Geneva: Slatkine Reprints, 1970), volume 1, 189; translated in Peter le Huray and James Day, *Music and Aesthetics in the Eighteenth and Early-Nineteenth Centuries* (Cambridge: Cambridge University Press, 1981), 184.



consonances, this is only because it feels it will soon get back to pure, perfect and natural consonances, that the cause of its anxiety will soon be removed, that it has only been deprived of the things it loves in order to lay hold of them soon again, that in doing so it will find them more beautiful and touching still . . . Without being assured of a return to natural consonance the soul will never cease to torment itself.³

Although Lacépède was chiefly concerned with operatic practices, his words point to a phenomenon that affected contemporary instrumental and vocal music alike, notably the tendency for minor discourse to become marked by instability and burdened by troubling connotations (variously including images of darkness, melancholy, terror and suspense), so that minor keys were vulnerable to being judged problematic as the basis for large-scale compositions.

For early eighteenth-century ears, minor harmony would appear to have been a less haunted presence, not necessarily disparaged and certainly not relegated to the margins of instrumental practice. Within a newly recognized domain of twenty-four keys, equally divided between major and minor, the two modes could be regarded objectively as opposite poles, capable of being placed side by side on a more or less equal footing.⁴ The idea of systematically embracing major and minor in this spirit is most famously represented by the first book of Bach's *Well-Tempered Clavier* (1722), but other examples could be cited. Friedrich Suppig's *Labyrinthus musicus*⁵ of the same year leads an extraordinarily lengthy, meandering toccata through all twenty-four keys, and there are more compactly designed demonstration pieces by Heinichen and Sorge that likewise traverse the tonal spectrum.⁶

The twelve concertos of Vivaldi's Op. 3 (*L'estro armonico*, 1711) divide equally between major and minor keys, and until the end of the set, they are ordered so that works in major alternate with those in minor (Nos 10 and 11 are both in minor, No. 12 is in major). And among Vivaldi's subsequent published collections of concertos, the affirmation of modal balance persists as late as his Op. 11 (1729), with three works in major and three in minor.

The idea that major and minor could enjoy a semblance of equal stature is reinforced by the compositional practice of endowing fast-tempo movements in either mode with a similarly high-spirited character. Within Vivaldi's Op. 3, for example, the exuberance of declamatory unison fanfares, semiquaver passage-work, throbbing repeated-note bass lines and goal-directed falling-fifth sequences can be found in abundance among minor-key movements as well as those in major. And on a local level, impressions of near equivalence between major and minor may be heard in instances of 'minorization'. According to this distinctive trait of Vivaldi's, a momentary change from major to minor serves to colour the repetition of a phrase or motive (as in the violin concerto RV254/i, bars 20–23) or to underscore the tension between antecedent and consequent phases of an interior structural unit (as in Op. 3 No. 7/iii, bars 58–65).⁷

3 Lacépède, *La poétique de la musique*, 188–189; translated in le Huray and Day, *Music and Aesthetics*, 183–184.

4 See Joel Lester, 'The Recognition of Major and Minor Keys in German Theory: 1680–1730', *Journal of Music Theory* 22/1 (1978), 65–103; see also Lester, *Between Modes and Keys: German Theory 1592–1802* (Stuyvesant, NY: Pendragon, 1989), 97–118.

5 Friedrich Suppig, *Labyrinthus musicus. Bestehend in einer Fantasia. durch alle Tonos, nemlich: durch 12. duros und 12. molles, zusammen 24. Tonos, kann so wohl auff dem Clavicymbel ohne Pedal als auch auff der Orgel mit dem Pedale gespielet werden*, facsimile edition with Introduction by Rudolf Rasch (Utrecht: Diapason, 1990).

6 Johann David Heinichen, *Der General-Bass in der Composition* (Dresden, 1728), 885–889; Georg Andreas Sorge, *Toccata per omnem circulum* (unpublished manuscript, c1739). Editions of both are given in Rudolf Rasch, ed., *Johann David Heinichen, Andreas Sorge, Johann Philipp Kirnberger: Three Musical Circles for Keyboard* (Utrecht: Diapason, 1983), 4–6 and 7–13. Sorge's piece progresses systematically through all twenty-four keys, following the order demonstrated by the twenty-four-key circle in Johann Mattheson's *Kleine General-Bass-Schule* (Hamburg, 1735), 131. The key of F sharp major is missing from Heinichen's piece. Both begin and end in A minor.

7 For a wide-ranging discussion of 'minorization' in Vivaldi see Bella Brover-Lubovsky, "'Die schwarze Gredel", or the Parallel Minor Key in Vivaldi's Instrumental Music', *Studi Vivaldiani* 3 (2003), 105–132.



Among theoretical writings from the time, there are lists and tables whose comprehensive display of twelve major and twelve minor keys invites contemplation of the two modes as mutually defining opposites within a modern, fully constructed tonal system. Especially telling are those diagrams in the form of circles that lock the twelve major keys and their minor companions in a perfect, closed embrace.⁸ Mattheson's thoroughbass exercises in his *Exemplarische Organisten-Probe* (1719) span the entire range of major and minor keys;⁹ and an effort to affirm the equivalent status of those keys is further seen in Rameau's 1722 *Traité de l'harmonie*, where demonstrations on the monochord show how the minor third (and hence the basis for minor harmony) may be obtained no less directly than the major third from divisions of a fundamental sounding string.¹⁰

Such efforts notwithstanding, full equality was scarcely ever in question. The very phenomenon of minorization, for example, may signify modal interchangeability in a local context, but from the perspective of a major-key movement as a whole, it only helps affirm the subordination of the minor. On the theoretical side, the subservient stature of minor harmony had been recognized as early as the mid-sixteenth century in a passage from the third part of Zarlino's *Istitutioni harmoniche* (1558). Here, in a chapter on imperfect consonances, the author distinguishes between compositions whose mode highlights the division of the fifth according to the harmonic proportion (yielding the major third below, the minor third above) and those whose predominant harmonies are governed by a less perfect, arithmetic proportion (minor third below, major above). The former are apt to sound 'lively and full of cheer', whereas the latter tend to be 'sad and languid'.¹¹ Similar distinctions are drawn by Johannes Lippius in his *Synopsis musicae novae* (1612), where the major triad's harmonic proportion renders it 'more perfect, more noble, more pleasing' by comparison with the 'rather imperfect' quality of the minor triad, whose configuration of thirds derives from the arithmetic proportion.¹²

Rameau exemplifies a tendency among early eighteenth-century writers to echo their predecessors' conclusions regarding affective distinctions between major and minor. In book 2 of the *Traité* he observes that 'since the major third is naturally lively and gay, everything which is major or augmented will have this property. Since the minor third is naturally tender and sad, everything which is minor or diminished will also have this property'.¹³ Accordingly, the major mode on C, D or A proves 'suitable for songs of mirth and rejoicing', whereas the minor mode on F or B \flat , for example, is appropriate 'for mournful songs'.¹⁴ And yet theorists' accounts of minor-related qualities were not always uniformly bleak or restrictive. For Charles Masson, writing at the end of the seventeenth century, the key of D minor was capable of mixing gaiety with

8 See, for example, the musical circles in Heinichen's *Der General-Bass in der Composition*, 837, and Mattheson's *Kleine General-Bass-Schule*, 131 (both reproduced in Rasch, ed., *Three Musical Circles*, 4 and 7 respectively), the elaborate fold-out representation of twenty-four scales at the end of Johann Mattheson's *Das beschützte Orchestre* (Hamburg, 1717; facsimile reprint, Leipzig: Zentralantiquariat der Deutschen Demokratischen Republik, 1981), or the comprehensive listing of twenty-four keys, each supplied with its proper signature, in Jean-Philippe Rameau's *Traité de l'harmonie* (Paris, 1722), translated by Philip Gossett as *Treatise on Harmony* (New York: Dover, 1971), 173.

9 Rasch, ed., *Three Musical Circles*, 3. See also the related discussions in Lester, 'The Recognition of Major and Minor Keys', 65–103, and *Between Modes and Keys*, especially chapter 6, 97–117.

10 Rameau, *Treatise on Harmony*, 15–19, 35. As shown on 18 and 19, if a string or fundamental sound is divided according to the harmonic series, yielding the octave (1:2), fifth (2:3), fourth (3:4), major third (4:5) and minor third (5:6), that last division (representing one sixth of the string) will yield a minor third by comparison with the string as a whole if the string is sounded on the other side (five sixths of the entire string). In this manner, the minor third may be seen to arise directly from the fundamental sounding body. For further commentary see David Lewin, 'Two Interesting Passages in Rameau's *Traité de l'harmonie*', *In Theory Only* 4/3 (1978), 3–8.

11 Gioseffo Zarlino, *The Art of Counterpoint*, part 3 of *Le institutioni harmoniche* (Venice, 1558), trans. Guy A. Marco and Claude V. Palisca (New Haven: Yale University Press, 1986), 21–22.

12 Johannes Lippius, *Synopsis musicae novae* (Strasbourg, 1612), translated by Benito V. Rivera as *Synopsis of New Music* (Colorado Springs: Colorado College Music Press, 1977), 41–42.

13 Rameau, *Treatise on Harmony*, 64.

14 Rameau, *Treatise on Harmony*, 164.



gravity,¹⁵ and Mattheson determined that a ‘refreshing’ G minor, notable for its ‘tempered cheerfulness’, was ‘almost the most beautiful key’.¹⁶ Mattheson does describe C minor as sad but notes also that it can be ‘extremely lovely’; and his remark that ‘no harm is done when the attempt is made to enliven the key a little by a somewhat cheerful or regular tempo’¹⁷ calls to mind the robust spirit often encountered in Vivaldi’s minor-key allegros.

Between these writers’ understanding of a certain common ground between major and minor and the more pointed disparity noted by Lacépède lies a complex story of change in style, theoretical doctrine and compositional technique. One manifestation of an emerging divide may be seen in a group of minor-key symphonies and overtures by Giuseppe Sammartini, compositions from around the middle of the century whose special qualities have been described by Bathia Churgin.¹⁸ As in the composer’s contemporaneous works in major, a fast movement’s customary parade of differentiated themes is marked by continual realignment and mutual reinforcement among elements of texture, dynamics, harmony, rhythm and melodic profile. But the middle-period symphonies and overtures in minor betray something different – a tendency towards contrast in sonority and surface activity so pronounced as to constitute a distinctive instrumental language of its own. A prime example, the first movement of the G minor symphony J–C57 (C1744/1745),¹⁹ features moments of accentuated, simultaneous change in dynamics, register and orchestral sound (bars 50–51); passages crowded with agitated rhythmic figures and emphatic dissonance (bars 49–50, 55–56); and an outsized rhetorical climax whose impact is enhanced by abrupt changes in surface activity, register-crossing figuration in the strings, an extended dominant pedal point (bars 77–88) and the prolonged arpeggiation of a diminished-seventh chord prior to a decisive closing flourish. Here we find mode being treated not as an independent variable (as in Vivaldi, say, where major and minor might be routinely identified with similar kinds of rhythmic pattern and melodic gesture), but as a vital determinant of style, the relative stability of major distinguished to a significant degree from the volatility, points of dramatic emphasis and harmonic diversity now specially associated with minor.

Connections may be drawn between the choice of minor tonality as a site for instability, dissonance or affective extremes and an emerging aesthetic of the sublime, identified by Edmund Burke with the experience of delight coloured by terror or pain.²⁰ In chapter 18 of Diderot’s 1758 *Discours de la poésie dramatique* the author envisages theatrical horizons that encompass the horror of a dark night, the rumbling of distant thunder, the mystery of an ancient forest and the frightening roar of the cataract whose waters dash against

15 Charles Masson, *Nouveau Traité des règles de la composition de la musique* (Paris, 1697), quoted in Rita Steblin, *A History of Key Characteristics in the Eighteenth and Early Nineteenth Centuries* (Ann Arbor: UMI, 1983), 242.

16 Mattheson, *Das neu-eröffnete Orchestre* (Hamburg, 1713), quoted in Steblin, *Key Characteristics*, 278.

17 Mattheson, *Das neu-eröffnete Orchestre*, quoted in Steblin, *Key Characteristics*, 227.

18 Bathia Churgin, ‘Stormy Interlude: Sammartini’s Middle Symphonies and Overtures in Minor’, in *Giovanni Battista Sammartini and His Musical Environment*, ed. Anna Cattoretti (Turnhout: Brepols, 2004), 37–62. Churgin observes that the works in question, four symphonies and two overtures dating from C1744/1745 to 1751, ‘contain unique dramatic traits not found earlier or later in Sammartini’s symphonic output’ (42), traits that involve ‘sudden and unusual dynamic contrasts, orchestral unisons and dialogues, intensified counterpoint, distant keys, an emphasis on minor, dissonant harmony and melody, highly disjunct melody, rhythmic complexity, heightened climaxes and intensifications in the development and reformulated recapitulation, a tendency toward motivic or thematic recurrence and combination, thematic transformation, and formal and expressive novelty’ (62). (None of Sammartini’s subsequent symphonies is in minor.)

19 Published in *Giovanni Battista Sammartini: Ten Symphonies*, ed. Bathia Churgin, series A, volume 2 of *The Symphony: 1720–1840* (New York: Garland, 1984), 53–61.

20 Edmund Burke, *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful* (London, 1757); ed. Adam Phillips, *World’s Classics* (Oxford: Oxford University Press, 1990). See part 1, section 7 (‘Of the sublime’), 36–37: ‘When danger or pain press too nearly, they are incapable of giving any delight, and are simply terrible; but at certain distances, and with certain modifications, they may be . . . delightful’. See also part 4, sections 3 (‘Cause of pain and fear’, 119–120), 5 (‘How the sublime is produced’, 121–122) and 6 (‘How pain can be a cause of delight’, 122–123).



the rocks.²¹ The predilection for 'expressing the terrible so that it became a thing of beauty'²² may be witnessed in Gluck's *Don Juan* ballet (1761), notably in the final Dance of the Furies, which couples a fast-tempo D minor with unison declamation, staccato articulation and an array of unsettling ingredients that include disjunct melody, syncopation, pronounced dynamic accents, dissonant harmony and open-ended thematic elaboration. This music was appropriated by Boccherini for the finale of his own *Casa del diavolo* symphony (Op. 12 No. 4, 1771), it was a likely source of inspiration for Boccherini's contemporaries, including Johann Vanhal and Joseph Haydn, among others, and it may be regarded as a stimulus for a small yet memorable group of so-called *Sturm und Drang* instrumental works from the 1760s and 1770s.²³

Identified with images of rage, darkness, storm or underworld terror through emotionally charged instrumental works and the operas and ballets by which they were inspired, minor harmony offered a potential source of colour, theatrical intensity and narrative complication in the midst of otherwise unmarked major contexts; and apparently with such effects in mind, later eighteenth-century instrumental works often display strategically placed, momentary changes from major to minor.²⁴ The first-movement introduction to Mozart's 'Prague' Symphony, K504 (1786), offers a stirring example: the relative serenity of the long phrase begun on the upbeat to bar 7 is shattered on the downbeat to bar 16, where a fully scored D minor chord supplants the resolution to D major. The twenty-one bars that follow highlight the terror-prone apparatus of tonal dislocation, dissonance, syncopation, vacillation between loud and soft, bowed tremolo and pounding march rhythms in the timpani prior to the start of the Allegro in a restored D major at bar 37.²⁵

Composers' indulgence in such destabilizing mode-reversal tactics could only have reinforced later eighteenth-century associations of minor harmony with forces of unrest and disruption. And from this perspective, the choice of a minor key as the foundation for a symphony or string quartet, say, would seem likely to have posed a daunting (however tempting) challenge. To the extent that it was in the very nature of minor discourse to cause anxiety and leave 'something to be desired', how readily could minor tonality serve the presumed requirements of overall stability, coherence and closure in the design of a large-scale, autonomous instrumental cycle?²⁶ Indeed, despite the evident allure of the minor realm's potential for

21 Denis Diderot, *Discours de la poésie dramatique* (Paris, 1758); ed. Jean-Pol Caput, *Nouveaux Classiques Larousse* (Paris: Librairie Larousse, 1970), 94. See Daniel Hertz, *Haydn, Mozart and the Viennese School, 1740–1780* (New York: Norton, 1995), 188. Hertz proposes that Diderot's phrase 'La poésie veut quelque chose d'énorme, de barbare et sauvage' (94) could be imagined as a suitable inscription for Gluck's 1761 ballet *Don Juan*.

22 Hertz, *Haydn, Mozart and the Viennese School*, 188.

23 Hertz, *Haydn, Mozart and the Viennese School*, 188. The significance of the label *Sturm und Drang* – to identify a chronological phase in the music of Haydn and certain of his contemporaries, or else to designate a style topic whose manifestations are not limited to a particular time – has been addressed extensively in the literature. See the discussion and related bibliographical information in Churgin, 'Stormy Interlude', especially 38–39; also R. Larry Todd, 'Joseph Haydn and the *Sturm und Drang*: A Reevaluation', *The Music Review* 41/3 (1980), 172–196. For information on Johann Vanhal's predilection for minor-mode discourse I wish to thank Paul Bryan, whose paper 'Modality and Minor Mode in Johann Vanhal's Symphonies' was read at the conference 'Writing the History of the Eighteenth-Century Symphony', a scholarly meeting dedicated to the memory of A. Peter Brown, Indiana University, 4–6 November 2005.

24 See Ethan Haimo, 'Parallel Minor as a Destabilizing Force in the Abstract Music of Haydn, Mozart, and Beethoven', *Tijdschrift voor Muziektheorie* 10/2 (2005), 190–200.

25 See the detailed rhetorical analysis of the 'Prague' Symphony's first-movement introduction in Elaine Sisman, 'Genre, Gesture, and Meaning in Mozart's "Prague" Symphony', in *Mozart Studies* 2, ed. Cliff Eisen (Oxford: Clarendon, 1997), 33–45. As Sisman observes (45), Mozart's dramatic turn to D minor may have been inspired by that of Haydn's Symphony No. 75 in D major/I, bars 10–23, where a chromatically enriched, mystery-laden minor mode likewise comes about and remains in effect until the change to a fast tempo and the start of the exposition proper.

26 To raise the question is not necessarily to cast minor tonality in an unequivocally negative light, nor to cast doubt on the artistic merit of acknowledged minor-key masterpieces by Haydn, Mozart and their contemporaries, but simply to aim for a better understanding of certain later eighteenth-century attitudes towards the use of minor keys. For an overview of cognitive factors that may have coloured those attitudes see Leonard Meyer's discussion of the minor mode in Western music in *Emotion and Meaning in Music* (Chicago: University of Chicago Press, 1956), 222–229.



dramatic intensity and colouristic diversity, composers of the time seem only rarely to have drawn on minor tonality for their instrumental works. To cite one measure, the Breitkopf Thematic Catalogue for 1781 lists eighty-four symphonies, a mere three of which are in minor, and for the same year, only seven out of some forty-five string quartets are in minor. By and large, proportions are roughly comparable for these genres in most years of the preceding decade and in the years that followed, through to the end of the catalogue's run in 1787. In other words, the figures for 1781 are more or less typical, although the proportion of minor quartets for this year is relatively large, and the quantities are smaller for some other genres (for instance violin concertos, all sixteen of which are in major).²⁷

The marginalization that these numbers suggest is at least obliquely confirmed in later eighteenth-century commentary on distinguishing properties of the modes and on the characteristics of particular minor keys. Abbé Vogler, for example, remarked on the contrast between the naturally strong, luminous qualities of major, on one hand, and the weak, dusky qualities of minor on the other.²⁸ Johann Friedrich Christmann heard the tones of the minor mode as relatively 'dull, shaky and hollow' and sensed that 'they depress the spirit',²⁹ and Grétry, noting that 'all the minor keys have a melancholy tint', deemed them best suited to sentiments 'which are not of a pure nature'.³⁰ Galeazzi, who found D minor to be 'extremely melancholy and gloomy',³¹ declared that B minor should be 'banished from music of good taste'.³² Schubart relegated F minor to 'groans of misery and longing for the grave';³³ and for J. J. H. Ribock, A minor was 'the worst key of all, so sleepy, phlegmatic, that it should be perhaps the least used as a tonic'.³⁴

More objective, rationally grounded reservations arose in the domain of harmonic theory. As acknowledged by Rameau just several years after publication of the *Traité de l'harmonie* (in the *Nouveau système* of 1726),³⁵ and widely affirmed in subsequent writings, including Lacépède's, major harmony was a phenomenon of natural resonance. The fact that the notes of the major triad were embedded among the lower partials of a sounding string meant that major harmony was privileged by nature. Minor harmony was therefore to be regarded not only as 'rather imperfect' from a mathematical perspective, as theorists had previously argued, but downright unnatural on acoustical grounds as well. It could be obtained only through contrivance, by dislodging the major triad's components from their rightful position of major third below,

27 *The Breitkopf Thematic Catalogue: The Six Parts and Sixteen Supplements, 1762–1787*, facsimile reprint, with Introduction and indexes by Barry S. Brook (New York: Dover, 1966), 702–710, 721. Statistics cited are summarized in Rey Longyear, 'The Minor Mode in the Classic Period', *The Music Review* 32/1 (1971), 28.

28 Georg Joseph Vogler, *Betrachtungen der Mannheimer Tonschule*, 3 volumes text, 1 volume *Gegenstände der Betrachtungen* (Mannheim, 1778–1781; facsimile reprint, Hildesheim: Olms, 1974), volume 2, 332 (358 of the corrected pagination in the reprint). See the related discussion in Floyd Grave and Margaret Grave, *In Praise of Harmony: The Teachings of Abbé Georg Joseph Vogler* (Lincoln: University of Nebraska Press, 1987), 91–92, and Floyd Grave, 'Instrumental Music in the *Betrachtungen der Mannheimer Tonschule*: A Reflection of Music Aesthetics in Transition', in *Abbé Vogler: Ein Mannheimer im europäischen Kontext. Internationales Colloquium Heidelberg 1999*, ed. Thomas Betzwieser and Silke Leopold (Frankfurt am Main: Lang, 2003), 133.

29 Johann Friedrich Christmann, *Elementarbuch der Tonkunst* (Speyer, 1782–1789), 266–267. Cited in Leonard G. Ratner, *Classic Music: Expression, Form, and Style* (New York: Schirmer, 1980), 55.

30 André-Ernest-Modeste Grétry, *Mémoires, ou Essais sur la musique* (Paris, 1797), volume 2, 358. Cited in Steblin, *Key Characteristics*, 108.

31 Francesco Galeazzi, *Elementi teorico-pratici di musica*, 2 volumes (Rome, 1791, 1796). Cited in Steblin, *Key Characteristics*, 242.

32 Steblin, *Key Characteristics*, 306.

33 Christian Friedrich Daniel Schubart, *Ideen zu einer Ästhetik der Tonkunst* (Vienna, 1806). The posthumously published treatise was written during the author's imprisonment in the Hohenasperg c1784. Cited in Steblin, *Key Characteristics*, 266.

34 J. J. H. Ribock, 'Über Musik; an Flötenlieber insonderheit', in Cramer's *Magazin der Musik* 1 (1783), 686–732. Cited in Steblin, *Key Characteristics*, 293.

35 Jean-Philippe Rameau, *Nouveau système de musique théorique* (Paris, 1726); translated in B. Glenn Chandler, 'Rameau's *Nouveau système de musique théorique*: An Annotated Translation with Commentary' (PhD dissertation, Indiana University, 1975).



minor third above, and it was thus destined to be viewed as an emblem of reversal or inversion, a mirror image of the natural major from which it was derived.³⁶

For the composer who dared to compose a large-scale work in minor despite all obstacles or caveats, there remained a technical problem having to do with long-standing customs for allocating tonal relationships within a minor-key design.³⁷ The first movement of Mozart's Symphony in G minor K183 (1773) illustrates the familiar quandary. Opening gestures confront us with recognized markers of an unstable, affectively charged minor, including unison scoring, syncopation, angular melody and agitated semiquaver figures. A later contrasting theme in the relative major (beginning in bar 59) thus comes as a relief, owing to its conjunct melody, relatively subdued rhythmic action and balanced phrases, notwithstanding the large-scale structural dissonance (the home key's displacement) that underlies the soothing surface. The recapitulation resolves the exposition's tonal shift by bringing back essential material in the tonic minor, and in the process, the identity of secondary and closing themes will remain intact, no less than for a patch of modally reversed repetition in a Vivaldi concerto. Yet this brand of minorized recurrence entails something more weighty than a mere change of colour: in accordance with sonata-form principles, the material in question must bear the burden of structural resolution, notwithstanding the fact that relative-major themes from the exposition have now been altered to conform to the 'impaired consonance' of minor. For at least some listeners of the time – accustomed to the satisfaction of unproblematic closure normally offered by major-key forms – might the end of this movement have left something to be desired, especially if the recapitulation's minor inflections called to mind darkening shadows, the affirmation of an unnatural state, or recollections of minor-related discord from earlier in the narrative?

And yet there was a way to avoid the rhetorical dilemma without recoiling altogether from those unstable forces to which minor discourse seemed drawn: the composer could simply wave the magic wand of modal reversal at some point in the latter part of a movement, thereby dissolving minor-related imperfection in a major ending. The act of progressing from minor to major could bestow special benefits, notably by suggesting some uplifting narrative about adversity overcome, yearnings satisfied or a state of impairment rectified by the restoration of wholeness and stability. Applied to the last movement of an instrumental cycle, such a manoeuvre could enhance the finale's stature as a culmination: the goal towards which previous movements had been striving and the stage on which to address any persisting conflict or disharmony to which they may have given rise.³⁸ Of course, to recognize the desirability of such an ending was to

36 See, for example, Georg Joseph Vogler's commentary on the minor scale in his *Tonwissenschaft und Tonsezkunst* (Mannheim, 1776), 51–52. This scale has no natural basis, he observes, because there is no way that the minor third can be derived directly from a sounding string. Instead, the minor scale can be formed only by reversing the major and minor thirds that comprise the major triads from which the major scale is formed (those of the first, fourth and fifth scale degrees). See the pertinent discussions in Grave and Grave, *In Praise of Harmony*, 91–92, and Grave, 'Instrumental Music', 133–135. See also Haimo, 'Parallel Minor', 191–193.

The conception of minor harmony as the mirror image of major is basic to Rameau's formulation in *Génération harmonique* (Paris, 1737; facsimile reprint as volume 3 of *The Complete Theoretical Writings of Jean-Philippe Rameau*, ed. Erwin Jacobi (American Institute of Musicology, 1967–1972)), 31–32; translated in Deborah Hayes, 'Rameau's Theory of Harmonic Generation: An Annotated Translation and Commentary of *Génération harmonique* by Jean-Philippe Rameau' (PhD dissertation, Stanford University, 1968), 58–59. Given a sounding string (c), one third and one fifth of that string will produce the twelfth and seventeenth above (g¹ and e², respectively) to produce the tones of a major triad; correspondingly, string lengths three and five times the length of the original string (representing the reciprocals of one third and one fifth) will produce tones a twelfth and seventeenth below the initial string (namely F¹ and A_b²), yielding minor harmony.

37 Aspects of the 'extra burden' of minor-mode sonata forms are examined in James Hepokoski and Warren Darcy, *Elements of Sonata Theory: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata* (New York: Oxford University Press, 2006), 306–307.

38 On questions of cyclic cohesion and the potential role of the finale as cyclic culmination see James Webster, *Haydn's 'Farewell' Symphony and the Idea of Classical Style* (Cambridge: Cambridge University Press, 1991), 174–185, 295–300,



acknowledge the abnormal condition of minor tonality to begin with and perhaps further to ensure that it remain confined to a shaded corner of the later eighteenth-century instrumental landscape.

* * *

Haydn perhaps felt more at home in that corner than many of his contemporaries, and despite the problematic convention of modulating to a bright major in the exposition, only to restore the shroud of minor for the duration of the recapitulation, he favoured that prototype for minor-key sonata forms in works from the 1760s to the early 1780s. This can be in Table 1, where lowercase Roman numerals designate sonata-form movements in Haydn's minor-key symphonies, string quartets, keyboard sonatas and keyboard trios. Scanning the upper, chronologically earlier portion of the table reveals no more than two instances of reversal from minor to major (Symphonies Nos 26 and 45) and three cases in which a minor-key work incorporates a sonata-form movement in the tonic major (Sonata No. 47bis Add., Symphonies Nos 34 and 52). (Flagged by the superscript 'd' are several quartet movements in minor, two composed prior to the 1780s, that introduce the major third above the tonic in the closing bars, following a structural close in minor.)

By contrast, beginning with the Symphony No. 80 in D minor (1784), major endings occur frequently, especially among final movements, for all the instrumental genres represented in the table. On this evidence, it would appear that by the time Lacépède had written on the dissatisfaction of ending in minor, Haydn himself had moved in a similar direction by adopting major endings in minor-key works as a common practice.³⁹ From now on, he will prefer either to cast an entire sonata form in major, for example the finales of Symphonies Nos 80, 83 and 95, or to place a decisive change from minor to major at some point within the latter part of the form. Several later opening movements do end in minor (as in the String Quartet in B minor, Op. 64 No. 2), and there is one instance of an entire recapitulation in major (Trio H19 in G minor). But apart from such exceptions, the newly established custom for minor-mode movements in sonata form will require that minor tonality hold sway until sometime after the return of the primary theme in the recapitulation. At a critical moment, often marked by an emphatic caesura or fermata or a tell-tale hiatus in the texture, minor will yield to major for the remainder of the form. (There is only one arguably ambiguous case, the fast second movement of the 'Razor' Quartet, Op. 55 No. 2, where the point of return to the tonic minor and opening theme is embedded within the fugal development section, at bar 125. If this event is heard as a disguised point of recapitulation, the switch to major at bar 145 may be understood as an instance of modal reversal implanted within the course of the final section and not as the start of an incomplete major recapitulation.⁴⁰)

and Ethan Haimo, *Haydn's Symphonic Forms: Essays in Compositional Logic* (Oxford: Clarendon, 1995), 97–99, 202–207. See also Peter A. Hoyt, 'Review-Essay: Haydn's New Incoherence', *Music Theory Spectrum* 19/2 (1997), 265–268.

39 By coincidence, the year in which Lacépède's treatise appeared (1785) was also the year in which Haydn's initiation into the Masonic lodge 'Zur wahren Eintracht' was completed. In *Haydn and the Enlightenment: The Late Symphonies and Their Audience* (Oxford: Clarendon, 1990) David Schroeder ponders possible connections between the latter event and certain contemporaneous changes in Haydn's symphonic style, notably what he describes as a 'new level of dramatic intelligibility' (41). And although Schroeder does not specifically identify cases of the transcendence of major over minor as representations of Enlightenment ideals, he does scrutinize the first movement of Haydn's minor-key symphony from that year (No. 83 in G minor). In this movement (which switches from minor to major following the start of the recapitulation), he finds a demonstration of the 'highest form of unity . . . in which opposing forces can coexist', and he argues that Haydn's approach proves 'consistent with that of the writers of the Enlightenment' (88).

40 Floyd Grave and Margaret Grave, *The String Quartets of Joseph Haydn* (New York: Oxford University Press, 2006), 127. For more on the larger issue of movement and work endings in Haydn's minor-key works see Webster, *Haydn's 'Farewell' Symphony*, 221–224. As Webster notes, Haydn did end most of his sharp-side minor-key works in minor throughout his life; but for the genres represented in Table 1, there are only four sharp-side minor compositions in question from the later 1780s on; all have sonata forms that either end in major or are cast in major in their entirety; and neither of the two finales that end in minor (Quartet Op. 50 No. 4 and Trio HXV:26) is in sonata form.



Table 1 Minor vs major endings to tonic-key sonata-form movements in Haydn's minor-key symphonies, string quartets, keyboard sonatas and keyboard trios^a

Movements are designated by lowercase Roman numerals. Those placed in the rightmost column under 'ending in minor' and 'ending in major' are final movements of their cycles. M=entire movement in major; R:M=recapitulation in major; R→M=change to major within the recapitulation.

Datings are based principally on those represented in James Webster and Georg Feder, *The New Grove Haydn* (New York: Palgrave, 2002). (−1767 = by 1767; dates in brackets not documented.) Numberings for the symphonies (H1), keyboard trios (HXV), and keyboard sonatas (HXVI) follow those of the Hoboken catalogue. Quartets are designated by opus number.

WORK	KEY	DATE	SONATA-FORM MOVEMENTS			
			ending in minor		ending in major	
Sonata 47bisAdd.	e	?1765	i ^b			ii/M
Symphony 34	d/D ^c	−1767(−?1765)	i			ii/M
Symphony 49	f	1768	i	ii	iv	
Quartet 9/4	d	c1768–1770	i		iv	
Symphony 26	d	−1770 (−?1768)				i/R→M
Symphony 39	g	−1770(?1765)	i		iv	
Quartet 17/4	c	1771	i ^d		iv	
Sonata 20	c	1771	i		iii	
Sonata 44	g	c1771–1773	i			
Quartet 20/3	g	1772	i		iv ^d	
Quartet 20/5	f	1772	i			
Symphony 44	e	−1772	i		iv	
Symphony 45	f#	1772	i			iv→M ^e
Symphony 52	c	−1774(−?1772)	i		iv	ii/M
Sonata 32	b	−1776	i		iii	
Sonata 36	c#	−1780	i			
Quartet 33/1	b	1781	i		iv	
Symphony 78	c	?1782	i			
Sonata 34	e	−1784	i			
Symphony 80	d	1784				i/R→M
Quartet 42	d	−1785(?1784)	i ^d		iv	
Symphony 83	g	1785				i/R→M
Quartet 50/4	f#	1787				i/R→M
Quartet 55/2	f	1788				ii/R→M
Trio 12	e	−1789	i			ii/M
Trio 13	c	1789				ii/M
Quartet 64/2	b	1790	i			iv/R→M
Symphony 95	c	1791				i/R→M
Quartet 74/3	g	−1793(?1792)				i/R→M
Trio 19	g	−1794				ii/M
Trio 26	f#	(?1794)	i			ii/M
Trio 23	d	−1795				iii/M
Trio 31	e, ^f	1795				
Quartet 76/2	d	−1797(?1796)	i			iv/R→M

a Omitted are two early keyboard trios (HXV:f1 (F minor) and HXV:1 (G minor)) listed in *The New Grove Haydn* as 'probably authentic'.

b Ends on a V chord, with an *attacca* connection to ii.

c Only i (Adagio) is in minor; ii to iv are in D major.

d Third of tonic triad raised in final bars, after structural close in minor.

e iv constitutes a double finale: the end of the Presto (F sharp minor) is interrupted to introduce an Adagio that moves from A major to F sharp major.

f No movements in sonata form.



In light of Haydn's recognized fondness for inventive play with musical conventions,⁴¹ and given the emerging status of the minor-to-major scheme as a convention in its own right, such a plan would seem by the closing years of the century to have become a ripe subject for Haydnesque musical wit, contemplation or stylistic commentary. The string quartet, which had earned a reputation as a forum for musical connoisseurship, parody and topical allusion, largely owing to Haydn's leadership, was well suited to such endeavours; and this was in fact the medium that Haydn chose for what turned out to be his last fully completed instrumental cycle in minor, the so-called 'Quinten', Op. 76 No. 2 in D minor.⁴² As indicated in Table 1, the finale of this quartet is one of those that begins in minor but switches to major within the recapitulation.

Not shown on the table, which is confined to works cast in minor from the start, are the novel minor-to-major schemes that Haydn actually embeds in the finales of the two works flanking this quartet – Op. 76 Nos 1 in G and 3 in C – despite the fact that the reigning tonality of both works is not minor but major. In effect, both quartets negotiate a kind of double reversal: first through the audacity of casting the last movement in the parallel minor, thereby undermining the work's major foundation at a point where major affirmation would have seemed natural and expected, then by engineering an eventual second reversal, this time from minor to major. In all three closing movements, the return to major is similarly postponed until after the start of the recapitulation and aptly signalled by a change of key signature in the score. The three finales thus comprise a distinctive group, each illuminating a particular facet of minor discourse before yielding, in its own special way, to the supremacy of major.⁴³

Op. 76 No. 2, the opus group's only quartet in a minor key and hence the presumed point of departure for this enterprise, is one of Haydn's single-tonic works in which minor and major alternate across the cycle, leaving the last movement to conclude the play of modal contrast and assure the final ascendancy of major.⁴⁴ The finale's principal theme, more exotic than stormy or theatrical, sounds like something drawn from outside the cultivated tradition, owing mainly to its prominent raised-fourth scale degree (G[#]). Assimilation of this foreign element is foreshadowed as early as the tune's second reprise, which normalizes the G[#] to G^{natural}, but will not be decisively accomplished until the change of mode at bar 180, well past the start of the recapitulation. (The melody sounded here starts out as a major-mode version of the primary-theme variant heard initially at bar 22.) There are G[#]s in the texture following this point, but gone is the alien augmented-second gap (F^{natural}–G[#]), and the G[#]s now function mostly as familiar, unmarked ingredients (leading note to the dominant, chromatic passing note) within a freshly established D major.

In contrast to the D minor quartet's exoticism, the finale of Op. 76 No. 3 evokes a theatrical scene, with multiple-stopped thunderclaps at the outset, storms of raging triplets to accompany the restatement and elaboration of the opening figure (beginning in bar 12) and the pathos of a diametrically opposed idea – a gentle stepwise rise and fall implanted within the opening phrase (bars 3–4). This plea for peace is met at first

41 This aspect of Haydn's compositional technique and artistic personality is examined in Gretchen A. Wheelock, *Haydn's Ingenious Jestings with Art: Contexts of Musical Wit and Humor* (New York: Schirmer, 1992). See also Mark Evan Bonds, 'Haydn, Laurence Sterne, and the Origins of Musical Irony', *Journal of the American Musicological Society* 44/1 (1991), 57–91.

42 Haydn intended to add a quartet in D minor to the set he had begun with the two works eventually published as Op. 77 Nos 1 and 2, but the quartet remained unfinished, owing to the composer's advancing infirmity, and the two completed, interior movements were finally published as Op. 103, comprising an *Andante grazioso* in B flat major and a dance movement in D minor. See Grave and Grave, *The String Quartets of Joseph Haydn*, 323–325, 332–335.

43 It was a recurrent practice of Haydn's to display several (often three) variants of a certain form or structural principle within a quartet opus. The most conspicuous previous examples are the three fugal finales of Op. 20 and the three rondo finales in Op. 33. See Floyd Grave, 'Opposites Reconciled: Fugue and Rondo in the Finale of Haydn's String Quartet in A, Op. 55/1', in *The Haydn Society of Great Britain Journal* 25 (2006), 24–31. For further discussion of correspondences in procedure and movement type among the quartets of Op. 76, focusing in particular on relationships between two subgroups within that set (Nos 1–3 and 4–6), see Elaine Sisman, 'In Werken denken: Die Erzeugung musikalischer Bedeutung für Haydns vielgestaltiges Publikum', *Haydn-Studien* 9/1–4 (2006), 29–32.

44 On Haydn's single-tonic or 'monotonal' cycles see Webster, *Haydn's 'Farewell' Symphony*, 220–221, 308–312.



by spirited denial, and yet it persists, gaining prominence with the exposition's turn to the relative major, E flat, and initiating a sustained, richly textured secondary theme. Predictably, it is this quietly resisting voice, however frail at first, that will win out in the end. The recapitulation begins by restoring C minor (bar 119) and revisiting the opening theme's opposed elements. But with the change of signature to C major at bar 152 (formally analogous to the start of the exposition's move towards the relative major at bar 21), a C major variant of the imploring gesture will materialize, gather strength and guide the movement to a joyous conclusion.

The finale to the G major quartet, Op. 76 No. 1, resembles that of Op. 76 No. 3 in the oddity of its harmonic premise – the initial plunge to the minor mode, in defiance of the major orientation of the cycle as a whole. And it resembles the last movement of Op. 76 No. 2 in identifying modal change with the vicissitudes of a primary theme and its variants. However, this finale stands apart from its neighbours in important respects, including the breadth of its tonal compass, the extent to which it connects with events heard earlier in the work, the intricacy of its internal harmonic design, by which echoes of an initial idiosyncrasy – the substitution of minor for major – resound through local modal reversals in the course of exposition, development and recapitulation, and most of all the novelty of its thematic process: the minor-inflected idea announced at the start will not only engender a wealth of variants, elaborations and derivatives, but will itself undergo drastic transformation in shape and character once the major mode has been regained.

What can be said about the character of that idea, shown in Example 1a, as we first encounter it? Its affective register is uncertain. Suggestive neither of violence nor any other emotional extreme, it nonetheless captures a nexus of disturbing qualities commonly linked with minor, including a strident unison sonority, staccato articulation, disjunct melody and jostling triplet figures. Intensity and restlessness are amplified by a congestion of motivic variants as the six-bar phrase unfolds (see Example 1b): the triplet figure X submits to inversion at the end of bar 1, the outer notes of Y stretch from a minor sixth to a diminished seventh in bar 2, and the following sequential repetitions of X undergo downward interval expansion of their own as the coherence of X–Y shatters into fragments in bar 3. The sudden impulse of modular acceleration ($1 + 1, \frac{1}{2} + \frac{1}{2}$) is now just as suddenly contradicted by augmentations of X that stretch the duration of the phrase while at the same time animating the rhythmic surface with trills that hover menacingly above the dominant. An octave-spanning punctuation on the downbeat of bar 6 signals a casting-off of the unison straitjacket, and the elaborations that follow release the theme's explosive potential through syncopated counterpoint, flurries of staccato triplets, fragmented textures, overlapping motivic fragments and the harmonic tension of a long developmental transition.

Expectations of a major opening to the finale have been dashed, and our awareness of a dire condition is enhanced by the recollection of preceding events, going back as far as the first movement. There the threatening presence of minor harmony, the effort needed to overcome its force and the transformed atmosphere to be enjoyed following its removal are all foreshadowed. Specifically, a dominant pedal in the course of the opening movement's exposition (bars 42–47) prepares for entry into the new key, D major, but D minor intrudes, driven by repetitive unison arpeggios and a compulsive quaver surface rhythm. The disruption cancels any immediate possibility of closure and gives rise to a span of chromatically inflected turmoil before the path is cleared for the restoration of major. What ensues is not merely a well proportioned, harmonically stable contrasting theme but an emblem of rustic charm and innocence – a pristine hexachordal melody without leading note or diminished fifth, set in a texture that invokes the skirl and drone of a bagpipe. When these events are recalled in the recapitulation, transposed from dominant to tonic, the contrasting sound-images of minor digression and major bagpipe theme seem well matched to Schubart's contemporaneous portrayal of the two keys now in question, G minor and G major. The former he associates with discontent and uneasiness, whereas to the latter belongs 'everything rustic, idyllic and lyrical. . . every gentle and peaceful emotion' (see Example 2a, which quotes from the secondary theme as it appears in the recapitulation, bars 196–199).⁴⁵ Connotations of pastoral innocence are reinforced in the third

45 Schubart, *Ideen*, cited in Steblin, *Key Characteristics*, 274 (on G major), 278 (on G minor).



(a)

Finale
Allegro ma non troppo

(b)

Example 1 Haydn, String Quartet in G major, Op. 76 No. 1/iv, bars 1–6 (all examples are taken from *Joseph Haydn Werke*, series 12, volume 6, *Streichquartette 'Opus 76', 'Opus 77', und 'Opus 103'*, ed. Horst Walter (Munich: Henle, 2003)). Used by permission. (a) full score (b) violin 1 only. Letters X and Y designate the theme's two motivic elements; superscripts indicate variants

movement's G major trio (quoted in Example 2b), where a yodelling melody over pizzicato accompaniment recaptures the folk-like topos as an oasis of calm in the midst of a frenzied, high-speed minuet (which itself had featured at its very core, bars 11–22, a discordant turn to G minor).

Highlighting the quartet's contest of major and minor is a preoccupation with two crucial pitches: b^2 , representing the bright third above the tonic in G major, and its minor shadow, the $b\flat^2$ lying a chromatic half step below. Both are featured as local peaks, and both are implicated in points of modal reversal. As shown in Example 3a, the first violin proclaims the authority of b^2 as the goal of the work's initial rising gesture. Examples 3b and 3c come from the latter part of the exposition and recapitulation, respectively, where prominent $B\flat$ s intrude on the scene to deflect the tonal focus. In Example 3b, b^2 crowns the first violin's arpeggiated ii chord in a freshly emerging D major, but in the next bar, the downward inflection of that pitch helps signal the start of a roiling sixteen bars of digression to D minor before the major mode resurfaces. In Example 3c, the $b\flat^2$ s of bars 183–185 form the local peak of a corresponding detour, this time from the recapitulation's re-established G major to the parallel minor. Our b^2 will be reinstated in the course of the recurring bagpipe theme (from bar 206 on), and its salience will be re-emphasized in the last bar of the movement, where it stands out as the first violin's highest pitch (Example 3d).

The second movement sustains a tense relationship between $b\flat^2$ and b^2 in the course of a transition from its tonic, C, to the dominant (bars 17–33). Following a cadence in C at bar 16, the first violin's $b\flat^2$ in bar 17 – the movement's highest pitch so far – sounds a note of instability as it signals departure from the home key. Maddening repetitions of that note in bars 28 and 29, where the first violin sounds $b\flat^2$ no fewer than sixteen times, signify an impediment, just as motion into an unproblematic G major had seemed a sure thing (see



(a)

(b)

Trio

Example 2 (a) String Quartet in G major, Op. 76 No. 1/i, bars 196–199 (b) String Quartet in G major, Op. 76 No. 1/iii, trio, bars 41–44

Example 4). Impressions of an obstacle to be overcome are amplified by the crescendo and double stops that accompany syncopated iterations of the crucial note in bar 29, the climactic force of the upward resolution to b^2 in bar 30 and the cadenza-like celebration that follows (transposed to the tonic, an equivalent modal change takes place in the latter part of the movement, bars 86–90).

Having shone serenely in this moment of release early in the second movement, b^3 re-emerges as a supercharged *fortissimo* in bar 8 of the presto minuet, just before the end of the first strain (Example 5a); and its importance is further highlighted at the end of the minuet, where the last three bars (Example 5b) articulate a stuttering echo of the opening movement's three-chord introduction (shown above in Example 3a).

Given what has transpired up to now – vivid contrasts between minor and major, depictions of struggle between a turbulent G minor and a serene G major, and the attendant juxtapositions of $b\flat^2$ and b^2 – the retreat to a lower-register G minor at the start of the finale is an ominous development. The change of mode confirms suspicions about minor harmony as a still unresolved problem, and the gnarled unison announcement stands as a measure of the distance to be travelled before we can recapture the peace foreshadowed by the opening movement's bagpipe theme, the Adagio sostenuto's luminous G (then C) major arpeggiation or the trio's country dance. From this perspective, a key purpose of the finale will be to vanquish the negative forces of minor once and for all, and Haydn will show how this can be accomplished through a logically constructed narrative of recovery and restoration. Basic to his strategy is the portrayal of major and minor as



(a) *Allegro con spirito*

(b)

(c)

(d)

Example 3 String Quartet in G major, Op. 76 No. 1/i (violin 1 only) (a) bars 1–2 (b) bars 53–55 (c) bars 180–187 (d) bars 223–225

opposites; and it is perhaps with the theme of opposites in mind that he has richly and systematically endowed the music with signifiers of reversal, diametric opposition, inversion and reflective symmetry in the arrangement of formal ingredients and pitch relationships.⁴⁶

Symmetry is embodied in many ways within the finale. We may begin by noting the two opposed bookends to the design, set off with brackets in Table 2a below: the opening unison idea plus harmonized restatement, all in G minor (Pa, a¹, bars 1–12), and its complement, the coda's G major transformation (Pa³, a³⁻¹, bars 181–200). Next, as indicated in the parallel columns of Table 2a, we can see how events following P in the exposition are variously reconfigured or abbreviated, but otherwise recognizable (especially 2Tb, S and K) in the course of the recapitulation.⁴⁷ This seemingly unexceptional degree of resemblance is actually

46 On the cognitive importance of symmetrical patterning see Robert P. Morgan, 'Symmetrical Form and Common-Practice Tonality', *Music Theory Spectrum* 20/1 (1998), 1.

47 Haydn's thematic procedures are often nuanced or ambivalent in ways that prove difficult to capture with a system of labels for discrete thematic functions. Thus the theme designated '2T' in Table 2a could well be labelled '1S', given the cadence in the relative major (B flat) on the downbeat of bar 25 and the fact that the following material clearly belongs to that key. But other factors – notably the relentless triplet-quaver surface rhythm, the open-ended phrasing, the climactic intensity of bars 51–52 and the heavily weighted punctuation and surface contrast at bar 54 – justify hearing the entire sweep of bars 13–54 as transitional, in the manner of the continuous exposition model described in



[Adagio sostenuto]

27 [mezza voce] *cresc.*

[mezza voce] *cresc.*

[mezza voce] *cresc.*

[mezza voce] *cresc.*

30 *f*

f

f

f

Example 4 String Quartet in G major, Op. 76 No. 1/ii, bars 27–32

noteworthy in light of the composer's tendency, especially in later works, to subject his recapitulations to extensive reordering and recomposition.⁴⁸ Given this predilection of Haydn's, similarities witnessed here in matters of thematic sequence, proportion and tonal action between the form's outer segments may be understood as marked elements in a specially designed scheme of symmetries and balanced correspondence.

Also to be noticed is the recursive harmonic scheme – a species of nested, reflective correspondence – by which certain interior events mimic the movement's initial modal reversal and its consequences. The original deflection to tonic minor, undermining major tonality at the start, had opened up the tonal range to flat-side relatives of G minor; and in like manner, the exposition's push to a decisive cadence in the relative major, B flat (bar 54, quoted in Example 6), is followed immediately by the switch to B flat minor and that remote key's relatives, D flat major (bar 60) and E flat minor (bar 63), before a last-minute reversion to B flat major (bar 66) to signal an impending close to the exposition. (Our sense of a logical connection between this internal shift of mode and the modal reversal experienced at the outset is assured by a palpable thematic

Hepokoski and Darcy, *Elements of Sonata Theory*, 51: 'the continuous exposition, especially in Haydn's works, usually fills up most of the expositional space with the relentlessly ongoing, expansive spinning-out (*Fortspinnung*) of an initial idea or its immediate consequences'.

48 See Ethan Haimo, 'Haydn's Altered Reprise', *Journal of Music Theory* 32/2 (1988), 335–351. See also Bathia Churgin, 'The Recapitulation in Sonata-Form Movements of Sammartini and Early Haydn Symphonies', in *Joseph Haydn: Bericht über den Internationalen Joseph Haydn Kongress, Wien, 1982*, ed. Eva Badura-Skoda (Munich: Henle, 1986), 135–140; Eugene Wolf, 'The Recapitulations in Haydn's London Symphonies', *The Musical Quarterly* 52/1 (1966), 71–89; and Webster, *Haydn's 'Farewell' Symphony*, 165–166.

(a)
Menuet
Presto

(b)

Example 5 String Quartet in G major, Op. 76 No. 1/iii (a) bars 1–8 (b) bars 38–40

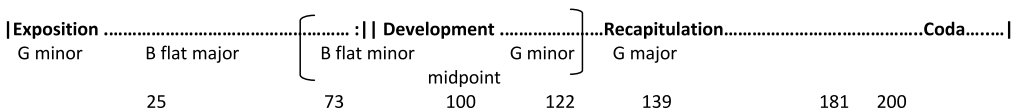


Figure 1 Haydn, String Quartet in G major, Op. 76 No. 1/iv. Approximate structural proportions and selected salient features are displayed in accordance with the ‘timeline’ method proposed in Jan LaRue, *Guidelines for Style Analysis*, second edition (Warren, MI: Harmonie Park, 1992). The central, minor-dominated span delineated by brackets (bars 73–138) encompasses the development section and the beginning of the recapitulation. This portion of the design is outlined in detail in Table 2b, below

relationship between primary and secondary themes: the oscillations of bars 55–56, 58–60, 61–63 and 64–65, complete with quaver rests and trill figures in the two middle instances, derive from those heard in bars 4–6.)

Re-enactment of these events in the recapitulation, transposed down a minor third from the level of relative major to that of the tonic, contributes to outward impressions of symmetry (see the parallel order of events demonstrated in Table 2a), but it also ensures that the instability of modal reversal will penetrate deeply into the latter part of the movement. Most importantly, the plan mandates a late, temporary reversion to G minor, analogous to the exposition’s B flat minor – a reminder of that distressing element which has yet to be eradicated and a foil for the pure G major of the coda.



Table 2. Haydn, String Quartet in G major, Op. 76 No. 1/iv. Symbols follow those in LaRue, *Guidelines for Style Analysis*. Capital letters designate thematic functions: P=primary; T=transition; S=secondary; K=closing; N=new material, introduced after the end of the exposition. Lowercase letters designate phrases within a theme; superscript numbers distinguish variants; numbers after a decimal point represent variants of variants; thematic symbols in parentheses show derivations

a) Comparison of the exposition (left column) with the recapitulation and coda (right column).

Brackets surrounding bars 1–12 and 181–200 call attention to the special correspondence between these two framing ingredients: the initial presentation of P and the transformation of that theme at the end.

Exposition			Recapitulation		
1–6	Pa	G minor	122–127	Pa ¹	G minor
7–12	a ¹		128–138	a ²	
13–24	1T (P)	G minor→B flat major	137, 138		fermatas
25–29	2Ta (P)	B flat major	139–145	2Na(P)	G major
30–38	b (P)		146–150	b	
39–41	c (P ^{inv})		151–159	2Tb	
42–45	3Ta				
46–53	b				
54–57	S (P)	B flat major→B flat minor	160–163	S	G major→G minor
57–60		B flat minor→D flat major	163–166		G minor→B flat major
60–63		D flat major→E flat minor	166–169		B flat major→C minor
63–66		E flat minor→B flat major	169–173		C minor→G major
66–72	K (P)	B flat major	173–180	K ¹	G major
Coda					
			181–188	Pa ³	
			189–200	a ^{3.1}	

b) Central portion, bracketed in Figure 1, encompassing the development section and the beginning of the recapitulation. Here brackets highlight the correspondence between the salient primary-theme statements with which this portion of the movement begins and ends.

Development section

73–78	Pa ^{1.1}	B flat minor
79–84	a ^{1.2}	F minor
85–90	1T ¹	modulation from F minor to A flat major
91–93	2Ta ¹	A flat major→A flat minor, 93
94–99	1N (P)	A flat minor
100	midpoint	D flat minor chord: iv of A flat minor (or i of D flat minor)
101–105	1N	modulation to A (=B double flat major, or VI of D flat minor), 102
106–109	2Ta ^{1.1}	A major→A minor, 109
110–115	1T ² a	A minor→V of D minor, 114–115
116–121	a ¹	D minor →V of G minor, 120–121

Recapitulation

122–127	Pa ¹	G minor
128–138	a ² (1T)	fermatas in 137 and 138 before the change to G major on the upbeat to bar 139



Example 6 String Quartet in G major, Op. 76 No. 1/iv, bars 54–67

Modal reversal, a basic premise of the movement and a prominent force in the form's outer sections, also plays a decisive role in the central portion of the design, marked by brackets in Figure 1 and outlined in detail in Table 2b. This embedded span replicates the approximate symmetries of the form as a whole by beginning and ending with paired thematic statements derived from P: first the phrase pair $Pa^{1-1}-a^{1-2}$, which will establish B flat minor and that key's dominant minor as the development gets under way, then the later phrase pair Pa^1-a^2 , which will serve to reinstate the tonic minor (thereby designating a point of recapitulation), but which at the same time will form an integral part of the movement's central phase by rounding out its minor-dominated discourse prior to the all-important change to major at bar 139.



Reinforcing the interlocked themes of symmetry and modal reversal is the fact that the switch from G minor to G major at the end of the bracketed segment mirrors the corresponding reversal from B flat major to B flat minor at its start, the boundary between exposition and development.

Other symmetries reveal themselves within this middle portion of the design: progress towards the movement's midpoint (bar 100) makes reference to 1T and 2Ta (with a tonal shift up a minor third, F minor to A flat major, corresponding to the exposition's move from G minor to B flat major), whereas motion away from the midpoint (bars 106–121) involves elaboration of those transitional elements in reverse, 2Ta then 1T; and whereas the development section's tonal action had begun with a rising fifth (B flat minor to F minor), it closes with a series of falling fifths – A minor, D minor and finally G minor for the start of the recapitulation (see Table 2b).

Yet to be addressed is the keystone of the design, the uncanny, emptied-out passage featured in Example 7. (The example encompasses the end of 2Ta¹, bars 92–93, the thematically neutralized derivative of P marked 1N in Table 2b, bars 94–105, and the resumption of transitional material, 2Ta^{1,1}, at bar 106.) Haydn introduces this pivotal moment by once again invoking modal reversal, this time from A flat major to A flat minor (bar 93). Following the inverted A flat minor chord of bar 97, the cycling arpeggiations of 1N fill a span of four harmonically motionless bars to mark a point of furthest remove in the truest sense: the D flat minor chord that sustains this passage clings to the opposite mode from the G major in which the work ends, and its root lies diametrically opposite from G on the circle of fifths – the diminished-fifth relationship, bisecting the G octave. (The D flat minor chord, approached as the subdominant of A flat minor, may almost be heard as a momentary tonal centre in its own right, despite the absence of a tonicizing secondary dominant. This is in part because of its solid root-position configuration and extraordinary duration – no other harmony is sustained this long in the movement – but also because of its falling major-third relationship to the root of the B double-flat chord that follows (enharmonically spelt as A), which in this context may be most plausibly heard as a progression from i to VI in D flat minor.)

Our recognition of the chord's importance is enhanced by its special location – it precisely straddles the midpoint of a two-hundred-bar form – and the strange musical environment that envelops it: what had seemed an unstoppable thrust of motivic development, still in force as of bar 93, suddenly dissolves in sustained pitches and slowly cycling chordal notes. The volume recedes, harmony comes to a standstill, and just as the ghostly pause in surface activity had begun with a diminuendo, six bars prior to the midpoint, purposive action will resume at the same distance past that point (bar 106), following a corresponding crescendo. Thus are the finale's prevailing qualities of symmetry, diametric opposition and reversal showcased at its very core.⁴⁹

Events recounted so far have been coloured by the movement's altered state, the usurping G minor, announced by the opening unison complaint and still in force as the tonic through the start of the recapitulation. Yet to come is the transcendence of major over minor and the work's crowning moment, the metamorphosis of the opening idea into its virtual opposite. Promoting unimpeded progress towards this outcome, Haydn lets the start of the recapitulation slip by almost unnoticed, as signs of a structural goal are suppressed in favour of ongoing momentum. First of all, the six bars that immediately precede the return to the tonic (116–121, passing from D minor to D major as V of G minor) unfold as a transposed replica of bars 110–115 (A minor to A major as V of D minor), so that instead of being explicitly marked as

49 Is it reasonable to question the significance of an event's central location (with respect to bar count) if it occurs in a movement with a repeated exposition? To do so would be to assume that the repeat is an obligatory part of the form. But listeners surely have the opportunity to comprehend the form as notated, without interruption, once the repeat has been taken. In this view, the repeat belongs to the temporal experience of the music but not its structure per se. See Morgan, 'Symmetrical Form', 12–13, where relevant distinctions are drawn between musical time (understood as temporal container) and musical space (comprising content); see also Jonathan Dunsby, 'The Formal Repeat', *Journal of the Royal Musical Association* 112/2 (1987), 196–207, and David Smyth, "'Balanced Interruption" and the Formal Repeat', *Music Theory Spectrum* 15/1 (1993), 76–88.



Example 7 String Quartet in G major, Op. 76 No. 1/iv, bars 92–106

a unique, preparatory event, bars 116–121 appear merely to be one step in a sequence of falling fifths whose end is not necessarily in sight. Moreover, the opening unison (Pa) does not recur: bar 122 corresponds to the destabilized, intensified restatement begun at bar 7. These factors help us to hear the start of the recapitulation as part of a process still under way – a closing-off of the movement’s central, minor-saturated phase – and they enable a rhetorically more important goal, the large-scale reversal from minor to major, to stand out in the clearest light. The latter moment (bar 139) does indeed sound like a revelation: a calm but riveting G major, secured by a derivative of the opening theme, which now unfolds as a legato, high-register solo for the first violin. Its consoling voice rises straight away to b^2 , that contested pitch whose bright tone had not been heard since the end of the third movement (Example 8).



Example 8 String Quartet in G major, Op. 76 No. 1/iv, bars 138–146

Well-placed alterations in the original theme's profile, combined with the stillness of a sustained-chord accompaniment, enhance the meaning of this event as a harbinger of resolution. Headlong motivic process is now tempered as the third bar (141) simply repeats the second (compare Examples 1 and 8); the fourth and fifth bars promote new stability by sustaining tonic harmony; the fifth caps the theme with a focused peak; and a long arpeggiated descent completes the reshaping of the theme as a closed eight-bar phrase.

However stunning a contrast to the movement's minor-key opening, this passage proves to be only an intermediate step in the final deliverance from minor, for, in accordance with Haydn's scheme of balanced proportions and relationships, the still-to-be-recalled secondary theme will offer a transposed replica of its counterpart in the exposition, including an immediate reversal from G major to G minor as the theme begins (bar 160, corresponding to the turn from B flat major to B flat minor in the exposition, bar 54). The air eventually clears with an extended variant of the exposition's closing theme that ends suspended on a dominant-seventh chord (bar 179), followed by a full bar's rest. It is during this silence that we cross the threshold to a wondrous sound-world of pure major harmony. Amid the peace that descends, a theme unfolds with the charm of a magical music box (bars 180–188, repeated in 188–196; see Example 9): a dream-like reflection of a country fiddler's tune, a light-hearted afterthought to celebrate, sound a note of farewell and wrap up the narrative with the kind of joyous spontaneity that Wye Allanbrook has identified as the 'comedy of closure'.⁵⁰ (Following the end of the theme's repetition, a bustling, thematically neutral extension drives the finale to a close in bar 200.)

50 On the significance of the topos of a simple, light-hearted tune as a sign of closure in Mozart see Wye J. Allanbrook, 'Mozart's Tunes and the Comedy of Closure', in *On Mozart*, ed. James M. Morris (Cambridge: Cambridge University Press, 1994), 169–186. 'Mozart's instrumental music . . . mirrors in the chiaroscuro of its surface the diverse modes of



Example 9 String Quartet in G major, Op. 76 No. 1/iv, bars 179–188

The tune is far from a mere addendum, however. Balancing the movement's opening phrases as it recalls principal-theme material, it forms an integral part of the design. Indeed, for all its air of innocence and natural simplicity, it represents a cunning, systematic transformation – not only linked to the opening idea at nearly every turn (only the descents in bars 187 and 195 are new) but informed throughout by elements of diametric opposition. The dynamic level has been reversed from an implied *forte* to *piano*, the lower instruments' pizzicato thoroughly dissolves the severity of the opening unison and, in a deft characterization of major and minor as mirror images of one another (an image well ingrained in Haydn's own practice),⁵¹ this G major melody turns the thematic gestures X and Y upside down as it recalls a portion of the original theme's distinctive rhythmic pattern in reverse (see Example 10a, where the opening phrase is aligned for

human existence, adopting as its dynamic model that motion out of adversity toward the happy ending that graces the universal comic narrative' (186). See also Sisman, 'In Werken denken', 31, where this coda is identified with a turn to the comical mode.

⁵¹ Manifestations of this image among Haydn's earlier works include the first movement of his String Quartet in B flat major, Op. 1 No. 1, whose opening idea, rising through the notes of a B flat major triad, is later reconfigured as a falling arpeggiation in B flat minor (bar 37, just before the start of the recapitulation in bar 41), and the first movement of his String Quartet in D minor, Op. 9 No. 4, where the secondary theme's falling scalar triplets in the relative major (exposition, bars 26 and 30) eventually come back as rising triplets in the tonic minor (recapitulation, bar 70). For pertinent discussion of theoretical views on the relationship between major and minor harmony see Siegmund Levarie, 'Musical Polarity: Major and Minor', *International Journal of Musicology* 1 (1992), 29–36.



(a)

(b)

Example 10 String Quartet in G major, Op. 76 No. 1/iv (a) bars 1–6, aligned for comparison with bars 181–188 (b) bars 2–3 and 181–182

comparison with its systematically expanded counterpart in the coda; Example 10b points out the rhythmic retrograde).⁵²

As witnessed in the example, the coda's theme relates to the opening unison in ways that indicate not merely the derivation of one idea from another but rather a persisting identity, a subject whose countenance has been transformed. Whereas the opening was marked for urgency and compression by the immediate development of a one-bar figure (comprising X and Y), the coda theme transmutes that element into a rounded two-bar incise by twice repeating the inverted X prior to sounding a displaced, inverted Y (bars 180–182). Countering the upward-striving, altered repeat of bar 2, Haydn now reiterates the newly fashioned two-bar idea down a step, unaltered (bars 182–184), as if it were at last relieved of the compulsion to struggle and intensify.

As for the sparkling, proportionally balanced phrase unit that follows (bars 184–188), it proves no less connected – and no less pointedly opposed – to the opening idea: bars 184–186, corresponding to bar 3, accomplish the return to the tonic through arpeggiations that rise through the tonic octave (g^1 – g^2), thereby

52 An earlier, more blatant instance of retrograde patterning in Haydn is seen in his Symphony No. 47 in G major/iii, where the second section is an exact reverse of the first in both minuet and trio. See Morgan, 'Symmetrical Form', 26–27.



mirroring the original downward motion through the dominant octave (d^2-d^1) that had begun on the upbeat to bar 3. Finally, the release of cascading triplets in bar 187, which round out the reshaped theme as they lead to a full cadence on the downbeat of bar 188, stands in sharpest opposition to corresponding gestures from the opening phrase: the suppressed energy of trills and oscillating half steps in bars 4–5, an implied half cadence and an inconclusive leap to the second beat of bar 6. Thus it appears that our idyllic coda theme has been there all along; but prior to its recuperation, which has allowed its limbs to stretch and enjoy harmonious balance, tranquillity and self-possession, it had been ensnared in a syndrome of minor harmony, unrest and inversion, whose tyranny had not only distorted its natural shape but impelled it on a journey to the remotest boundaries of its tonal domain.

Inscribed in that journey is a reflection of the historical circumstances by which the opposing spheres of major and minor had grown distant from one another, minor tonality inviting realization not only abstractly as a polar opposite but often as a site of troubling images and emotional states, whether spooked by terror, drenched in sorrow or driven by a sinister and restless chromaticism. If such connotations threatened to undermine the solidity of minor harmony as a foundation, they granted Haydn and his contemporaries a valuable resource for effects of vivid colour and drama as well as the basis for long-range trajectories from minor to major.

Listeners in Haydn's milieu would have been accustomed to such trajectories through their acquaintance with the composer's own previous instrumental music as well as with theatre works that gave explicit meaning to their juxtapositions of minor and major. In this late instance of the device, Haydn enjoys sure command of the resources at his disposal, juggling musical opposites within a context of polarity, symmetry and recursive modulatory patterns in ways that help guarantee the persuasive force and narrative coherence of the whole.

Connoisseurs of the day would doubtless have recognized this movement as a case of Haydn's wit, exemplifying the composer's ingenious play with topics, conventions and the discovery of unexpected relationships. But might this depiction of a subject's travails and transformation have struck a deeper chord? The idea of a musical narrative that progresses from a state of impairment or distortion to a condition of restored health and normality has been identified in nineteenth-century instrumental works, notably those of Beethoven and Schubert, in which the disruptive force of a chromatic intrusion is ultimately accommodated or overcome so that wholeness and stability are restored.⁵³

Haydn's finale to Op. 76 No. 1 would appear to have anticipated such a scheme with its own narrative of recuperation. The minor mode itself is the affliction, its symptoms foreshadowed as early as the first movement. Holding the start of the finale in its grip, it deprives the movement's subject of grace, wholeness or stability, leaving it misshapen, tormented and dissatisfied. But as the design unfolds, the process of emerging from darkness to light and reclaiming major-mode ground will redress the injury and permit the healed subject to revel in a natural and innocent state.

Should we endeavour to place that subject and read meaning into its recuperative journey, it must be with the understanding that we cannot know for certain either Haydn's intentions or his contemporaries' response to the apparent message of renewal or redemption. Yet both the composer and his admirers were surely familiar with that aural terrain depicted by Lacépède, where 'the ear will never find true and perfect repose'⁵⁴ under the restless shadow of minor harmony. If so, may we not consider joining them as listeners and performers, and in so doing perhaps find in ourselves a reflection of Lacépède's unsettled soul, able to delight in the contrived consonances of minor only because we know that the inner pain, the cause of our anxiety, will soon be removed, and that the pure harmony at first withheld will be all the more beautiful and touching once regained?

53 See Joseph N. Straus, 'Normalizing the Abnormal: Disability in Music and Music Theory', *Journal of the American Musicological Society* 59/1 (2006), 148–175.

54 Lacépède, *La poétique de la musique*, 189; translated in le Huray and Day, *Music and Aesthetics*, 184.