

# Thomas Young and Eighteenth-Century Tempi

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# Thomas Young and Eighteenth-Century Tempi

Dedicated to the memory of Ralph Berkowitz (1910–2011), a great pianist, teacher, and master of tempo.

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# Thomas Young and Eighteenth-Century Tempi

Peter Pesic

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In trying to determine musical tempi, we often lack exact and authoritative sources, especially from the eighteenth century, before composers began to indicate metronome markings. Accordingly, any independent accounts are of great value, such as were collected in Ralph Kirkpatrick's pioneering article (1938) and most recently surveyed in this journal by Beverly Jerold (2012).<sup>1</sup> This paper brings forward a new source in the writings of the English polymath Thomas Young (1773–1829), which has been overlooked by musicologists because its author's best-known work was in other fields. His writings on tempo offer useful comparisons with two other exactly contemporary English writings by William Crotch and Charles Mason, both professional musicians, especially regarding the relative tempo terms for very slow and very fast tempi. Though Young was not a professional musician, his independent account of tempo issues has the authority of his ability as a practitioner of experimental natural philosophy as well as of his keen interest in music.

Among the few treatises that attempted to give quantitative measures for tempi, Johann Joachim Quantz's famous book, *On Playing the Flute* (1752), had special importance for Young.<sup>2</sup> Quantz relied on "*the pulse beat at the hand of a healthy person . . . approximately eighty beats per minute*" as his time standard. Though this in itself gives a definite chronometric indication, Quantz used the pulse, not a clock, to prescribe tempi: "in at least two, four, six, or eight pulse beats, any tempo you wish can be established."<sup>3</sup> Such a procedure interposes an intermediate step between chronometric duration and the establishment of a tempo, a step that requires the assumption of an absolutely steady

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1. Ralph Kirkpatrick, "Eighteenth-Century Metronomic Indications," *Papers Read by Members of the American Musicological Society* (1938): 30–50; Beverly Jerold, "Numbers and Tempo: 1630-1800," *Performance Practice Review* 17, no. 1 (August 31, 2012), <http://scholarship.claremont.edu/ppr/vol17/iss1/4>. For useful surveys of contemporary research, see also Sandra P. Rosenblum, *Performance Practices in Classic Piano Music: Their Principles and Applications* (Bloomington: Indiana University Press, 1988), 305–361; Clive Brown, *Classical and Romantic Performing Practice 1750-1900* (Oxford: Oxford University Press, 1999), 282–335; Colin Lawson and Robin Stowell, *The Historical Performance of Music: An Introduction* (Cambridge: Cambridge University Press, 1999), 58–63.

2. Johann Joachim Quantz, *On Playing the Flute*, trans. Edward R. Reilly (New York: Schirmer Books, 1966), 283–291.

3. *Ibid.*, 284 (emphasis original).



physiological pulse, which he acknowledges is never exactly true. Quantz himself thought that “a few pulse beats more or less make no difference,” having noted that “a low-spirited, or melancholy, or cold and sluggish person could set the tempo in each piece a little faster than his pulse indicates.” As if recognizing the problems in his method, he invited anyone “who could discover a simpler, more accurate, and more convenient device” to come forward.<sup>4</sup>

Of course, Quantz is describing musical practice of the mid-eighteenth century, not the works of Haydn and Mozart written decades later. Looking back, Quantz notes that “what in former times was considered to be quite fast would have been played almost twice as slow as in the present day,” indicating already by his time a long-term acceleration of tempi to which we shall return.<sup>5</sup> He himself is also aware of the manifold nuances of tempi, such as the relative value of the smallest note in passage-work or the “common knowledge that a piece repeated once or more times consecutively, particularly a fast piece (for example, an Allegro from a concerto or sinfonia), is played a little faster the second time than the first, in order not to put the listeners to sleep.” He acknowledges stylistic differences, such as the more moderate tempi used for church music compared to the operatic style or the special demands for rigorous tempi in dance music.<sup>6</sup> In addition, as his Berlin colleague C. P. E. Bach observed (1759), tempi there differed from elsewhere, indicating the importance of local traditions and practices.<sup>7</sup> Thus, despite Quantz’s attempts, by 1770 John Holden concluded that “the absolute time which ought to be allowed to different pieces, is the most undetermined matter, that we meet with, in the whole science of music.”<sup>8</sup>

Kirkpatrick does include a number of French sources that used a pendulum as a kind of proto-metronome, but these fall in the period 1696 to 1762 and also are restricted to the French styles of that time. In England, William Crotch (1775–1847), beginning in 1800, published important tabulations of tempo information for the late eighteenth century based on pendulum lengths.<sup>9</sup> Crotch had been a notable infant musical prodigy

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4. Ibid., 288–289.

5. Ibid., 285.

6. Ibid., 285, 289, 287, 290. See also Brown, 295–296; Lawson and Stowell, 58–59.

7. In Berlin, “adagio is far slower and allegro far faster than is customary elsewhere”; Carl Philipp Emanuel Bach, *Essay on the True Art of Playing Keyboard Instruments*, trans. William J. Mitchell (New York: W. W. Norton, 1949), 414.

8. John Holden, *An Essay Towards a Rational System of Music* (Glasgow, 1770), 36.

9. William Crotch, “Remarks on the Terms at Present Used in Music, for Regulating the Time,” *The Monthly Magazine* 8 (January 1, 1800): 941–943; for helpful discussions, see Emanuel Rubin, “New Light on Late Eighteenth-century Tempo: William Crotch’s Pendulum Markings,” *Performance Practice Review* 2, no. 1 (March 1, 1989): 34; Wolfgang Auhagen, “William Crotch’s Tempoangaben zu Kompositionen des 18. Jahrhunderts,” in *Tempo, Rhythmik, Metrik, Artikulation in der Musik des 18. Jahrhunderts*, vol.

whom Charles Burney had described to the Royal Society and who went on to become professor of music at Oxford and the Royal Academy of Music. In 1801, Charles Mason, a teacher of music and flute in London, also published an essay emphasizing the value of the pendulum for setting tempi.<sup>10</sup>

Thomas Young also published, in 1800, a paper dealing with tempo, which seems altogether unaware of the work of Crotch or Mason. Young was a remarkable polymath, most famous for his decisive arguments in favor of the wave theory of light, published in 1802, and often associated with “Young’s two-slit experiment,” as it has come to be called.<sup>11</sup> A physician by profession, Young made an important discovery about the mechanism of accommodation of the eye, for which he was elected to the Royal Society at age twenty-one. He authored several medical treatises, including a careful description of the symptomatology of consumption (tuberculosis). Young was also a remarkable linguist, who wrote a detailed comparison of no less than four hundred languages, among which he himself was versed in Latin, Greek, Chaldean, Hebrew, and Syriac, beside the European languages. He later went on to important work on the decipherment of Egyptian hieroglyphics, one of the most celebrated puzzles of the age.<sup>12</sup>

In the course of his encyclopedic lectures on physical science at the Royal Institution of London (he gave no less than ninety-one such lectures within two years there), Young quite naturally included sound as well as light and mechanics within his purview. But his interests and lectures went far beyond the pure physics of sound to include details of musical practice. In 1800, Young published an “Essay on Music” that showed his keen awareness of many aspects of harmony and musical art; in another, more technical, essay written that year he set forth his proposal for a new scheme of temperament, a well-tempered scale known as the “Young temperament,” which has been revived for histori-

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53, Internationale Wissenschaftliche Arbeitstagung zu Fragen der Aufführungspraxis und Interpretation der Musik des 18. Jahrhunderts (Blankenburg: Stiftung Kloster Michaelstein, 1998), 44–53.

10. Charles Mason, *Rules on the Times, Metres, Phrases and Accent of Composition* (London, 1819). See also Rosamond E. M. Harding, *Origins of Musical Time and Expression*, (London: Oxford University Press, 1938), 1–35; Barry S. Brook, “Le Tempo dans l’exécution musical à la fin du XVIIIe siècle: les Contributions de C. Mason et William Crotch,” *Fontes Artis Musicae* 12 (1965): 196–201.

11. For a recent biography, see Andrew Robinson, *The Last Man Who Knew Everything: Thomas Young, the Anonymous Polymath Who Proved Newton Wrong, Explained How We See, Cured the Sick, and Deciphered the Rosetta Stone, Among Other Feats of Genius* (New York: Pi Press, 2006); for the relation between music and Young’s other work, see Peter Pesic, “Thomas Young’s Musical Optics: Translating Between Hearing and Seeing,” *Osiris* 28 (2013): 15–39 and Pesic, *Music and the Making of Modern Science* (Cambridge, MA: MIT Press, 2014), 161–179.

12. For Young’s work on hieroglyphics, see Cyrus Herzl Gordon, *Forgotten Scripts: Their Ongoing Discovery and Decipherment* (New York: Basic Books, 1982), 27–30; Jed Z. Buchwald and Diane Greco Josefowicz, *The Zodiac of Paris: How an Improbable Controversy over an Ancient Egyptian Artifact Provoked a Modern Debate Between Religion and Science* (Princeton: Princeton University Press, 2010), 316–317.

cally informed performances on period instruments.<sup>13</sup> His synoptic diagram illustrates and compares the respective features of different systems of temperament (see fig. 1).

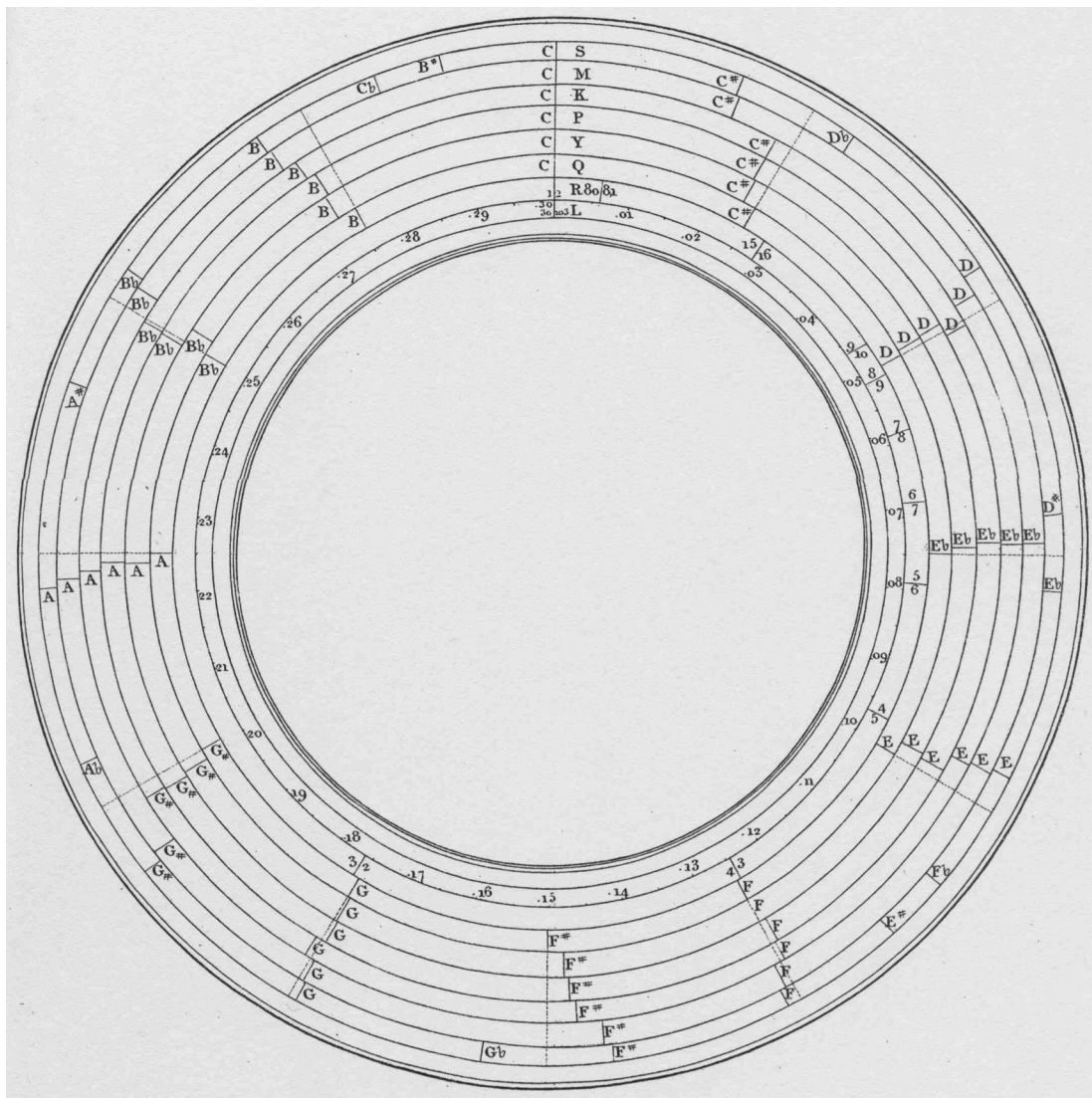


Figure 1. Young's comparative diagram of different temperaments, from his "Outlines of Experiments and Inquiries respecting Sound and Light" (1800), as reprinted in his *Miscellaneous Works* (London, 1855), vol. 1, fig. 113; his own temperament is designated *Y*.

13. Thomas Young, "An Essay on Music," *British Magazine* (October 1800); reprinted in Thomas Young, *Miscellaneous Works of the Late Thomas Young* . . . (London: J. Murray, 1855), 1:128–130. For examples of performances in Young's temperament, see the recordings of Beethoven's opp. 27 no. 2 and 53 in Enid Katahn, *Beethoven in the Temperaments: Historical Tuning on the Modern Concert Grand*, Gasparo GSCD-332, 1997, compact disc, and of op. 110 in Enid Katahn, *Six Degrees of Tonality: A Well Tempered Piano*, Gasparo GSCD-344, 2000, compact disc.

In the final section of his “Essay on Music,” Young turns to the problem of “the terms expressive of Time.” He notes the “great deficiency” of “any character expressive of the absolute duration of each note, however accurately the relative value of the notes may be prescribed,” here implicitly agreeing with Crotch. Acknowledging that “some little allowance must be made for the execution of the performer,” Young notes that “it would be easy to prefix to each movement a number, signifying how many bars are to be performed in a minute, which might at first be ascertained by the help of a stop watch, and would soon become perfectly familiar both to composers and performers, even without this assistance.” Like Crotch and Mason, Young independently specifies tempi using “the vibrations of a pendulum” during a minute, appending a helpful tabulation of the tempi thus given by pendulums of various lengths (see fig. 2). Young’s chart includes Quantz’s value for allegro assai 4/4 as measure = 40 (hence quarter note = MM 160, in metronomic notation).<sup>14</sup> No other contemporary writer on tempo, as far as I know, included Quantz as an *explicit* and precise calibrating factor, which gives Young’s treatment unique value in judging changes from Quantz’s tempi quantitatively, not just as general observations.

With this standard in mind, Young observes that “it is usual to perform modern music much more rapidly than this [tempo standard of Quantz]; or at least the style of composition is so changed, that the terms are very differently applied. An allegro, or even an allegretto, in common time, without semiquavers, is often performed as fast as 60 [MM 240]; seldom slower than 30 [MM 120].” That is, according to Young, the maximum allowable tempo for allegro seems to have risen by about fifty percent during the half-century between 1750 and 1800. This gives valuable information about the precise degree to which the tempi of what Young calls “ancient” music (such as the works of Corelli and Handel) were slower than the tempi his contemporaries chose for works written closer to 1800. Young’s independent assessment agrees with and gives precise quantitative form to Crotch’s general qualitative judgment that “the time [tempo], at the beginning of this century, was performed much slower than in modern music.”<sup>15</sup> Because Young bridges Quantz with the later eighteenth century, he thus provides valuable quantitative confirmation of this widely noted general change of tempo practice.<sup>16</sup> Of course, Young’s findings need to be considered as probably representative mainly of London musical practices in the years just before 1800, though it should be kept in mind that he had also recently studied medicine in Göttingen (where he had music lessons six times a week), with visits to Leipzig, Jena, Weimar, Dresden, and Berlin (1795–1797), so that he had some immediate experience with German musical practice.<sup>17</sup>

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14. See Quantz, 287–289.

15. Crotch, “Remarks,” 941.

16. See, for instance, Brown, 296–299, 336–337.

17. George Peacock, *Life of Thomas Young, M.D., F.R.S.* (London: J. Murray, 1855), 76–114.

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Figure 2. Young's tabulation of tempi, from his "Essay on Music" (1800), as reprinted in his *Miscellaneous Works* (London, 1855), vol. 1, 129–130.

Terms.	C	$\frac{2}{4}$	$\frac{3}{4}$	$\frac{6}{8}$	$\frac{3}{8}$
Prestissimo	As fast	as	you	can.	
Presto		100		80, H.	
Presto ma non troppo		90, H.			
Allegro assai	40, Q.	80, Pl.	70, H.		
Allegro molto		100 H.			
Allegro vivace			60, Pl.	50, Pl.	
Allegro	{ 25, Ha. 45, M. 40, 50, 60, Pl.	100, 120 H. 75, 80, Pl.	65, H.		
Allegro non troppo		60, Pl.		50, Pl.	
Allegro moderato	40, H.	70, M.			
Vivace assai		100, H.		60, H.	
Vivace			60, H.		
Spiritoso		90, H.			
Menuetto allegro molto			75, H.		
—— allegro			70, H. Pl.		
—— allegretto			55, H.		
—— moderato			50, H. M.		
Allegretto	20, Q.				45, Pl.
Allegretto grazioso	50, M.				
Moderato				30, Pl.	
Maestoso	19				
Larghetto	10, Q.				
Andante graz.		{ 35, H. Pl. 50, Pl.		30, M. 30, M.	
Andante					
And. cantab.			20, 25, M.		
Largo cant.	20, H.				
Adag. n. tr.	17, H.	27, 30, Pl.			20
Adagio	7, Cor.		14, H.	10, 12, M.	
Adagio molto	15, Scoz.			10, Pl.	

Cor. Corelli.  
Ha. Handel.  
Q. Quanz.  
H. Haydn.  
M. Mozart.  
Pl. Pleyel.

If we choose to compare the time, occupied either by a bar, or by any of its parts, with the vibrations of a pendulum, we may easily do it by means of the following table, which shows the number of vibrations in a minute, corresponding to pendulums of different lengths, expressed in inches.

Length.	Vibrations.	Length.	Vibrations.
4	187	15	97
5	167	20	84
6	153	25	75
7	142	30	68
8	132	35	63
9	125	40	59
10	118	50	53
12	107	60	47

Young's table also gives another independent source on a long-standing controversy about the interpretation of the swings of a pendulum in terms of tempo. Willem Talsma's assertion that a "swing" meant, at least in certain contexts, a complete cycle of a pendulum (returning to its starting point) was controverted by Wolfgang Auhagen's and Klaus Miehling's arguments that a "swing" always meant half such a cycle.<sup>18</sup> In his table,

18. Willem Retze Talsma, *Wiedergeburt der Klassiker* (Innsbruck: Wort und Welt Verlag, 1980); cf. Wolfgang Auhagen, "Chronometrische Tempoangaben Im 18. Und 19. Jahrhundert," *Archiv für Musik-*



Young's entry that a pendulum of forty inches "vibrates" fifty-nine times per minute agrees closely with Mason's independent finding (ca. 1801) that "thirty-nine inches will vibrate a second of time; which is exactly the quaver in the slowest Musical movement, viz. Grave time."<sup>19</sup> Here the term "vibration" could remain as ambiguous as "swing," except that Young's other writings clarify the issue definitively.

In his *Lectures*, Young carefully describes pendular motion by comparing the motion of a pendulum along a cycloidal path with another pendulum moving uniformly in a circular path (see fig. 3).<sup>20</sup> Cycloidal paths, "described by marking the path of a given point in the circumference of a circle which rolls on a right line," are isochronous: the time required for a pendulum to descend along that path to its bottom is equal, regardless of where one begins the descent. This special property recommended the use of cycloidal paths by watchmakers to improve the accuracy of pendulum clocks. By comparison, Young notes that a circular pendulum can be understood as the "united" resultant of two "equal vibrations," with the circular pendulum "completing its revolution in the time of two vibrations" of a cycloidal pendulum.<sup>21</sup> Thus, in his terminology (which he

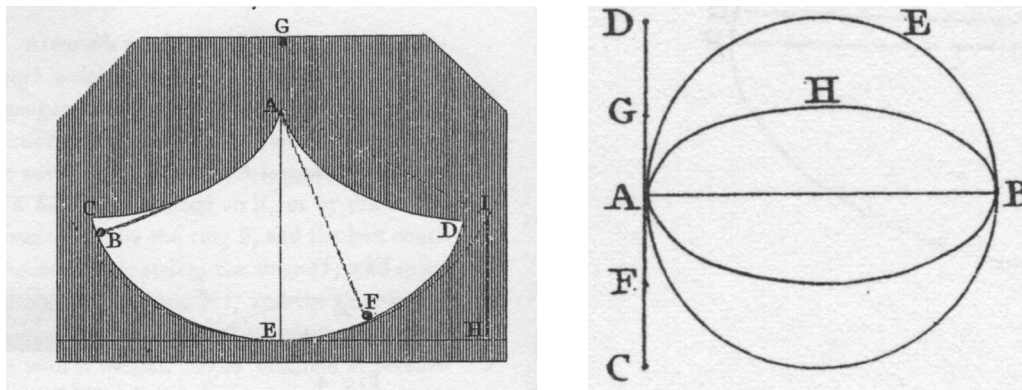


Figure 3. Thomas Young's diagrams of (left) a pendulum moving along a cycloidal path *CBEFD* (in which arc *BE* is traversed in the same time as the larger arc *CE*); and (right) two pendulums, each moving along the linear paths *AB* and *CD* in "equal vibrations," compared to another pendulum moving uniformly along the circle *AEB*. From *A Course of Lectures in Natural Philosophy and the Mechanical Arts* (London, 1807), vol. 1, plate II (p. 779).

*wissenschaft* 44 (1987): 40–57; Klaus Miehling, *Das Tempo in der Musik von Barock und Vorklassik: Die Antwort der Quellen auf ein umstrittenes Thema* (Wilhelmshaven: F. Noetzel, 1993); Auhagen, "Crotch's Tempoangaben." For a useful critical comparison, see Ido Abravaya, *On Bach's Rhythm and Tempo* (Kassel: Bärenreiter, 2006), 160–164.

19. Mason, *Rules on the Times, Metres, Phrases and Accent of Composition*; Rubin, 43n16.

20. Thomas Young, *Thomas Young's Lectures on Natural Philosophy and the Mechanical Arts* (Bristol: Thoemmes, 2002), 44.

21. *Ibid.*, 779, 45.

treats as common usage), two “vibrations” of a pendulum constitute a “revolution” or complete period, hence confirming that a “vibration” or “swing” is indeed a half-period.

Young’s tempi differ in two important qualitative respects from his immediate contemporaries Crotch and Mason. Both of them list “vivace” as a faster tempo than “allegro,” whereas Young puts “vivace” and “vivace assai” just slower than “allegro moderato.” Crotch and Mason both put “vivace” just under “presto” and “prestissimo.” On the other end of the tempo spectrum, both consider “largo” and “larghetto” slower than “adagio,” whereas Young has “largo cantabile” just faster than “adagio non troppo.”<sup>22</sup> On this matter, Young here seems to fall in line with contemporary British usage (along with some Germans), whereas Crotch and Mason side with what seems predominantly French and Italian usage.<sup>23</sup> On the issue of vivace, Young’s views accord with Leopold Mozart and Heinrich Christoph Koch; Crotch and Mason side with what seems an Italian view of a fast vivace that became more widespread in the nineteenth century.<sup>24</sup>

Recent scholarship has emphasized the importance of the interrelationship between time signature, note values, and tempo heading.<sup>25</sup> These considerations should be applied no less carefully to Young’s table, though his very brief commentary does not specify particular musical works (as does Crotch) or address such issues as “heavy” versus “light” execution, ecclesiastical versus operatic or chamber performance. Thus, Young’s schematic indications only give a few numbers that scarcely allow a nuanced reading in light of all these issues. Still, he differentiates between a few composers’ styles, presumably as he knew them recently rendered in London. His table also indicates some awareness of the different significances of various time signatures, unlike Mason’s more rudimentary list merely correlating pendulum length, tempo designation, and unit of beat. For instance, Young has a Haydn presto at quarter note = 200 in 2/4 time, but for the same composer’s presto in 6/8 time, dotted quarter = 160. Young notes, within the same tempo designation, an important nuance connecting time signature to the speed of the felt beat: he heard a Haydn presto 6/8 movement performed noticeably slower than a similar movement in 2/4 because of the different rhythmic structure (and relative complexity) of the two meters.

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22. For a helpful summary of Crotch’s and Mason’s tempi, see Brook, “Le tempo dans l’exécution musical.”

23. Rosenblum, 312–314.

24. Brown, 367–368. For instance, John Jousse, *A Compendious Musical Grammar* (London: Cramer, Addison, and Beale, 1825), based on Bonifazio Asioli, *Principj elementari di musica* (Milan: Mussi, 1811), took “vivace” as between “allegro” and “presto.”

25. See, for instance, Rosenblum, 305–312.

The application of Young's tempi requires some care because he specifies that his tempi apply to compositions *without semiquavers*, indicating that their presence or absence has a crucial effect that supervenes the given tempo marking: allegro in common time without semiquavers is, according to him, quarter note = MM 180 for Mozart, hence much less when semiquaver motion is present, as so often in Mozart. In light of this caveat, I suggest that the most reasonable way to interpret his indications would be to consider them as giving the tempo on the *next to smallest level of metrical subdivision*: that is, his beat shows the eighth-note pulsation if sixteenth notes are the fastest subdivision used in the piece. This would essentially have the effect of halving his tempi for most movements of Mozart, who tends to use sixteenth-note subdivision in many textures. This procedure is confirmed by the practice of Quantz, who also halved his tempi when the musical texture is subdivided into sixteenth notes.<sup>26</sup> To be sure, it should be borne in mind that changing notational practices could also give the impression of slower and faster tempi; though J. S. Bach's or Handel's sixteenth notes may, in many contexts, have been played more slowly than Mozart's or Haydn's, one cannot necessarily conclude that the earlier composers' music would have sounded subjectively slower. To make such a judgment, much would depend on the nature of the melodic lines and the pace of harmonic movement.

As an example, consider Mozart's first published piano sonata, KV 189d (279), which has sixteenth-note subdivisions throughout its common time. According to Young's table interpreted literally, there should be forty-five measures per minute, hence quarter note = MM 180, which would be absurdly fast—in fact, roughly twice too fast. If we reinterpret Young as giving the next-to-smallest subdivision (i.e., eighth notes in this case), we get quarter note = MM 90, which is quite comfortable and in fact much less hurried than the tempi one often hears for this movement, which tend to be around quarter note = MM 120, tending to make the short trills (as in mm. 2, 4, etc.) sound rushed and graceless.

It is rather difficult to find movements in Mozart and Haydn to which Young's tempo standards can be applied without this conversion, but Mozart's String Quartet in A Major, KV 464 (composed in 1785) contains several such examples. For its opening Allegro in 3/4, Young's table would call for quarter note = MM 195 (applying his "Haydn" tempo, since he does not separately specify a "Mozart" version for this case), which is definitely lively but quite playable and comfortable. Interpreting the following "Minuetto" as "Menuetto moderato" in Young's terms (the only one he associates with Mozart in his table) gives quarter note = MM 150; a workable, rather brisk tempo, though one wonders whether the occasional dotted-eighth–sixteenth-note rhythms might not militate toward a slightly slower tempo. The succeeding 2/4 Andante has thirty-second note subdivisions, hence would (on the interpretation suggested above) call for eighth

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26. See, for instance, Quantz, 285: "If, however, there are semiquavers or quaver triplets in three-four time, demisemiquavers or semiquaver triplets in three-eight time, or semiquavers in six-eight or twelve-eight time, they are in the more moderate tempo, which must be played twice as slow as the former."

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note = MM 70, rather than the literal quarter note = MM 70 that would require rushed torrents of thirty-second notes. The concluding Rondo allegro in common time has no sixteenth note subdivisions and is lively but comfortable at Young's quarter note = MM 180, at which tempo the repeated eighth notes (and eighth-note passage work) flow nicely.

Young's tempo indications give helpful comparisons to Crotch's versions, which to date have been the most cited English tempo compilations around 1800. As Auhagen has shown in detail, Crotch's tempi for "ancient" composers such as Corelli and Handel are markedly slower than those used in the group of recordings to which he compares them (which date from the 1960s through the late 1980s), generally by one to six degrees on the metronome.<sup>27</sup> Crotch's tempi for Mozart's *Requiem* are also much slower than such "authentic" performances as that by John Eliot Gardiner (by a factor of about thirty percent).<sup>28</sup> On the other hand, Crotch's tempi for the "modern" composers he would have heard in person, namely J. C. Bach and Haydn, are generally faster than the recordings Auhagen studied, by factors ranging from nine to sixty-two percent. This includes Crotch's tempi for Haydn's well-known sacred work, *Die sieben letzten Worte unseres Erlöser am Kreutze*, as well as his Symphony No. 74, and J. C. Bach's Sinfonia op. 9, no. 2.

Indeed, some of Crotch's tempi for the *Sieben letzten Worte* seem amazingly fast. It is difficult to make an exact comparison with Young's tempi, for Young's table lacks corresponding entries for many of the cases in question. For the Menuetto (allegretto) from Haydn's Symphony No. 74, Young (dotted eighth = 55) is slower than Crotch (65), though both are faster than the recordings Auhagen cites (36–40).<sup>29</sup> For J. C. Bach's opening Allegro (in common time), Crotch has half note = 91, which is well within Young's range for that tempo "often performed as fast as [half note = 120], seldom slower than [half note = 60]," markedly faster than Quantz's value of half note = 80.<sup>30</sup>

The movement for authentic performance practice has tended toward faster tempi, based on some treatises and also the easier action of early instruments. Here Crotch's testimony is especially confusing, giving much slower tempi for most "ancient" works, but for the "moderns" giving both significantly slower (Mozart) and faster (Haydn and J. C. Bach) tempi than those now common. To this, Young's observations offer helpful new information that broaden our knowledge of contemporary performance practice, which

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27. Auhagen, 51–52.

28. John Eliot Gardiner, *Missae; Requiem*, Complete Mozart Edition, vol. 9, Phonogram International 422519-2, 1991, compact disc.

29. Auhagen, 53.

30. See Quantz, 288.

may then open new possibilities for their realization in performance and our understanding of the nuances of tempo at the cusp of the eighteenth century.