

LOUIS SPOHR AND THE METRONOME

A contribution to early nineteenth-century performance practice

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IN 1763 James Watt developed the steam engine, in 1767 James Hargreaves constructed the spinning jenny and in 1768 Richard Arkwright introduced the spinning frame (DAVIES 1997: page 680, see bibliography below). Machines triggered a transformation of all economic and social structures that proved more radical than was ever believed possible and it was only natural that musicians too showed a keen interest in various mechanical devices. The Viennese mechanic Johann Nepomuk Maelzel (1772-1838), for instance, invented a *Panharmonikon*, for which Beethoven composed *Wellingtons Sieg oder Die Schlacht bei Vittoria* Op.91 in 1813 (ANON. 1813a). But whereas such attempts to replace human performers with machines were shortlived, another mechanical device invented at about the same time and associated with the name of Maelzel has exerted a profound impact on performances to the present day – the metronome. The success of the mechanical metronome stemmed from the fact that its invention coincided with the advent of the modern aesthetics of musical interpretation, which subordinated the performance to the composition, left fewer and fewer aspects of the composition to the discretion of the player, singer or conductor, and led composers to search for new methods and tools to specify their intentions as clearly and precisely as possible.

As the present author has demonstrated elsewhere, Louis Spohr played a crucial role in the development of the novel, composition-orientated aesthetics of performance (WULFHORST 1998/a-b and 1999). Thus it is not surprising that he also belonged among the first prominent musicians to recognise the value of the metronome for composers and performers, and to apply metronome markings to many of his published works. Yet because most of the research on the early nineteenth-century use of the metronome has focused on Beethoven, the contribution of Spohr, whom many contemporaries placed on a par with him, has not yet been sufficiently studied. The present article is intended to shed some light on this issue.

Not only Beethoven but also Maelzel has received an inordinate amount of attention in the literature on the metronome. Yet there were earlier attempts at musical tempo-measuring machines, most of which, however, received little or no attention (AUGHAGEN 1997: 230-31). Furthermore, contrary to common belief, Maelzel's role in the history of the metronome was much more that of a sales agent than of an inventor. Two years after introducing his first model of a *chronometer*, equipped with a little hammer (ANON 1813c-d), he saw and immediately adopted the more sophisticated metronome mechanism constructed by Diederick Nicolaus Winkel in Amsterdam. Winkel's machine resembled the modern mechanical metronome, consisting of a compound pendulum with an adjustable weight, moved by clockwork (AUGHAGEN 1997:231). Maelzel even received a patent for the invention, which was, however, partially revoked after a lawsuit and then limited to his scale (OREL 1960: 1456). Yet no matter who deserves credit for the invention, the true rivalry in the early nineteenth-century history of the metronome was less between Winkel and Maelzel than between their type of mechanical metronome and a much simpler device propagated at the same time by the music theorist Jacob

Gottfried Weber (1779-1839), whose contribution deserves closer scrutiny in the present context.

Weber too was led by the desire to provide a commonly acceptable time-measuring device which could serve, in his words, “as a translator between composer and performer [...*dazu bestimmt, den Dollmetscher zu machen zwischen dem Componisten und dem, der seine Composition aufführt*]” (WEBER 1813: 444). Weber’s device – for which the term *chronometer* has been chosen here over other contemporary terms such as *Taktmesser*, *Zeitmesser* or *Metronom*, in order to avoid confusion with Maelzel’s machine – was meant to be used in the following manner:

...it should only serve as a measuring tool that the composer uses to indicate precisely to the performer or, in music for larger forces, to the conductor the tempo in which he intends his work to be performed. The conductor should apply this tool *alone at home* in order to become acquainted with the composer’s intentions. After memorising the tempo he should go to the rehearsal while leaving the *chronometer* at home. Thus he can conduct according to the composer’s intentions which have been revealed and become familiar to him in this manner. – The *chronometer* is useful and obviously invaluable only as a means of communication between composer and performer!

[...*er sey blos der Maastab, dessen der Componist sich bedient, um dem Spieler, oder, für vollstimmige Musiken, dem Dirigenten, genau bezeichnet zu können, in welchem Tempo er sein Werk aufgeführt haben will. Diesen Maastab lege der Musikdirector für sich allein zu Hause an, mache da sich die Willensmeynung des Componisten bekannt, präge sich die Bewegung ins Gedächtnis, und gehe dann in die Probe, lasse sein Chronometer zu Hause, und dirigire nach der ihm auf diese Art bekannt und geläufig gewordenen Intention des Componisten. – Blos als Verständigungs-Mittel zwischen dem Componisten und dem Ausführer: blos dafür hat der Chronometer Brauchbarkeit, unverkennbarn, unbezahlbaren Werth!*] (WEBER 1813: 444, cf. Fig.1)

The objections Weber raised against mechanical metronomes were similar to those raised against virtually any machine at the dawn of the industrial age: he questioned the reliability and precision of the metronome, expressing a general scepticism towards machines, and criticised the fact that its high price divided musicians into those who could afford it and those who could not (WEBER 1813: 445, cf. Fig.1, and WEBER 1817a). His arguments were certainly valid during an age when manufacturing was far from perfect and when most musicians may not even have owned a watch good enough to check the precision of Maelzel’s metronome. The device Weber recommended as “the simplest and most reliable *chronometer*” (WEBER 1817a) was based on the pendulum principle too but consisted of a simple, hand-held string pendulum, attached to a weight and divided into even segments by knots: “...a lead ball, fastened to a thread on which inches are marked off by means of knots and points and which one lets swing back and forth” (WEBER 1813: 446, cf. Fig.1 on Page 4).

The roots of Weber’s device went all the way back to Galileo Galilei’s pendulum experiments of c1583 and to the discovery of the corresponding basic law by the Dutch mathematician Christian Huygens in about 1656 (ENCYCLOPEDIA AMERICANA 1965). As Huygens demonstrated, the period (T), that is, the time in seconds for a complete oscillation of a pendulum, is proportional to the square root of its length in metres (l), divided by the square root of the local acceleration of gravity (g):

$$T = 2\pi \sqrt{\frac{l}{g}}$$

auf die Aufführung wirken lassen; missbrauchte ihn zu einem Dienste, wozu er nicht taugte, nie taugen wird, nie taugen kann, und machte dadurch das Gute verkennen, was er leisten könnte, und was ohne ihn nie erreicht werden wird; machte, dass man das Instrument als unbrauchbar zurücklegte, weil es sich zu einer Verrichtung nicht missbrauchen lassen wollte, wozu es nicht geschaffen ist.

Musikd. Ich gestehe Ihnen: so wenig Ihre Idee neu ist — denn sie deutet eben auf die ursprüngliche, nur in der Folge misskannte Bestimmung des Chronometers zurück — so habe ich doch selbst das Werkzeug nie ausschliesslich von dieser Seite betrachtet; ich habe mit so vielen Andern darüber, dass es zum Dirigiren selbst nichts taugt, den Nutzen, welchen es sonst gewähren mag, zu erwägen vergessen.

Comp. Nun, es freuet mich, dass ich Sie überzeugt und für meine Meynung gewonnen habe.

Musikd. Oho! so weit sind wir noch nicht! Noch hätte ich verschiedene Einwendungen gegen die Anwendbarkeit und Gemeinnützigkeit des Instruments!

Comp. So? Nun, lassen Sie hören!

Musikd. Einen grossen Strich durch Ihre Rechnung macht die Unregelmässigkeit und Unvollkommenheit der bis jetzt erfundenen Chronometer: meistens fallen sie ungleich ab; geben die eine Zeit länger oder kürzer, als die andre. Doch dem könnte noch abgeholfen werden, durch — freylich kostspielige, Vervollkommnung des mechanischen Baues! Allein, was das Schlimmste ist: gesetzt auch, jedermann wollte sich nun gleich nach Ihrem Willen so eine kostbare Maschine anschaffen — lassen Sie noch zehn Chronometer erfinden, ja, lassen Sie zehn von einer und derselben Art bauen: so ist immer sehr ungewiss, ob der eine fortwährend übereinstimmend mit dem andern gehen und schlagen wird; und wenn ich dann meine Zeiten nach neuem Chronometer abmesse, welcher mit dem, des Componisten nicht genau übereinkommt und vollkommen gleichen Schritt hält, so ist Ihr ganzer eingebildeter Vortheil wieder zu Wasser geworden.

Comp. Diesem Missstande zuvorkommen, ist eben nicht schwer. Der Componist, statt sich auf die conventionellen, und freylich eben darum nicht allgemein gültigen, noch überall gleichen Grade, Ziffern, oder sonstigen Abtheilungen irgend eines Chronometers zu beziehen, darf nur, was noch viel kürzer und einfacher ist; anmerken, wie viel Zoll

und Linien (nach einem allgemein bekannten Masse, z. B. dem französischen) ein Pendel lang seyn müsse, um die Takttheile, so wie er sie haben will, anzugeben. So z. B. giebt ein Pendel von 5, 6 bis 7 pariser Zollen die Viertheile eines mehr oder weniger raschen Allegro an. Um nun eines dieser Tempo's allgemein gleichverständlich und haarscharf zu bezeichnen, darf der Componist nur die kurze Bezeichnung voransetzen: 5" oder 6" oder 5½", (und damit man nicht etwa rheinische, statt pariser Zoll verstehe, 5⅔" Par.) Eben so würde ein Viertheil unsers gewöhnlichen Adagio ungefähr folgendermassen zu bezeichnen seyn: 48" Par. d. h. 48 Zoll pariser Maas, ein Achtheil aber 12".

Musikd. Sie wollten sagen: 24".

Comp. Keineswegs: Sie wissen ja wol, dass ein doppelt langer Pendel nicht noch einmal so langsam schlägt, als ein einfach langer, sondern nur ein viermal so langer; dass also ein Pendel von 12" nicht viermal so geschwind schlägt, als einer von 48", sondern nur zweymal so geschwind.

Musikd. Ja wol: ich dachte nur eben nicht daran. Der Pendel, welcher Achtel schlagen soll, darf allerdings nur ¼ so lang seyn, als der Viertel schlägt.

Comp. Allerdings! — Kurz also: der Componist wird und muss überall auf diese Art sogleich richtig und überall gleichförmig verstanden werden, sobald er nur jedesmal die Länge des Pendels bezeichnet, welcher als Maasstab seiner Takttheile gelten soll, also der Viertel im zwey-Viertel-, drey-Viertel-, vier-Viertel-, sechs-Viertel-, neun-Viertel-Takte; der Achtel im drey-Achtel-, sechs-Achtel-, neun-Achtel-Takt u. s. w.; der halben Noten im Zwey-Zweytel- oder C-Takt, im ¼-, ⅙-Takt, u. s. w. —

Musikd. Ey, auf diese Art bedürfte es ja überall nicht einmal mehr irgend einer eignen Maschine, sondern jede Bleykugel, an einem Zwirnfaden befestigt, (an dem man allenfalls die Zolle durch Knoten und Punkte bezeichnet und welche man hin und her schwingen lässt,) genügt, um auf das unzweydeutigste zu erforschen, wie geschwind der Componist sein Stück vorgetragen haben will!

Comp. Allerdings; denn auf allzuscruptöse Genauigkeit kommt es hier nicht an, da selbst ein halber Zoll mehr oder weniger keinen merklichen Unterschied in der Schwingungsdauer bewirkt. — Nur brauche man die einzige Vorsicht, die Kugel nicht allzu hoch zu heben, den Pendel nur kleine,

Fig. 1 In his first article on the metronome — written in the form of a dialogue between composer and conductor, in the tradition of ancient philosophical and musical treatises — Jacob Gottfried Weber praised the advantages of his *chronometer* and described its use (WEBER in AMZ XVI/27 [July 7], cols. 441-47.

Assuming that g equals 9.81 m/s in Europe, one may calculate the number of beats per minute of a *chronometer* (n) as follows:

$$n = \frac{60}{\frac{T}{2}} = \frac{60}{\pi} \sqrt{\frac{g}{l}} = \frac{60}{3.141592} \frac{3.1320919}{\sqrt{l}} = \frac{59.81856}{\sqrt{l}}$$

The string pendulum was recommended first by Marin Mersenne in 1636-37, later by Étienne Loulié in 1696 (illustration in GOEBELS 1960: 234), and finally by Weber (AUHAGEN 1997: 230). It had three advantages: it was universally available, as it could be produced easily and inexpensively by any musician; it was convenient for, rolled up, it fitted into one's pocket; and it was reliable and standardised because, neglecting differences in the acceleration of gravity in different geographic regions, a string pendulum of a given length indicates the same tempo at any time and anywhere. In short, Weber, who was working as a judge at the time and, unlike Maelzel, was not led by any financial interest, intended to popularise a 'metronome for the masses.' All a musician needed in order to use his *chronometer* was the reference to a generally accepted unit of measurement. For Weber this was at first the Parisian inch (WEBER 1813: 446, cf. Fig.1) and later the Rhenish inch (*Rheinischer Zoll*), corresponding to 0.02615 metres (KENNELLY 1928: 86; LANGE 1976: 154) – a choice which has generated the misleading term "Rhein system" used sometimes in anglophone literature for his method. In his pamphlet *Über chronometrische Tempobezeichnung* (1817a) Weber juxtaposed pendulum measurements in Rhenish inches and centimetres to the corresponding numbers on Maelzel's metronome (reproduced in LEMKE 1968: 231), and urged composers to include appropriate measuring scales in all their published works. Therefore any musician could use a pendulum to convert tempos according to Maelzel's numbers and obtain thus what Weber promised in the title of another publication: "Maelzel's metronome, available for free anywhere [*Mälzels Metronome, überall umsonst zu haben*]" (WEBER 1817b, cf. 1817c). Table I below offers a comparative chart of pendulum lengths and Maelzel numbers, similar to Weber's but compiled on the basis of exact mathematical calculations and of metronome markings in published works by Spohr. The chart is intended to aid modern-day musicians puzzled by early nineteenth-century tempo indications such as *Rh.22"* or *15" Rhein*. (Cf. Fig.II).

Table I
Comparative Chart of Metronome Markings
According to Maelzel and Weber

<i>pendulum length in Rhenish inches (Rh.)</i>	<i>pendulum length in metres (calculated on the basis of 1 Rh." = 0.02615 m)</i>	<i>exact resulting number of beats per minute (calculated on the basis of the equation above)</i>	<i>corresponding number of beats per minute, as given by Spohr in his published works (cf. Table II)</i>
42	1.098	57.1	58 (WoO 52/8, 52/15)
39	1.019	59.2	60 (Op.54)
34	0.889	63.4	63 (Op.45) 66 (Op.58)
32	0.836	65.4	66 (Op.45)
30	0.784	67.5	67 (Op.52, 53) 69 (Op.54)
27	0.706	71.2	72 (WoO 52/1, 52/13)
26	0.679	72.6	72 (Op.54)

24	0.627	75.5	70 (Op.52,53) 76 (Op.45, 54, WoO 52/7, 52/16)
22	0.575	78.9	80 (Op.42)
21	0.549	80.7	80 (Op.42, 58, WoO 52/3, 52/5, 52/12)
20	0.523	82.7	84 (Op.45)
19	0.497	84.9	
18	0.470	87.2	88 (Op.45, Op.58)
17	0.444	89.7	88 (Op.58) [Erroneously, the printed parts for Op.58/1/i give the tempo as 77"Rh. 88M.]
16	0.418	92.5	92 (Op.43, WoO 52/6)
15	0.392	95.5	96 (Op.42, 45, 58, WoO 52/9, 52/12)
14	0.366	98.9	100 (Op.58)
13	0.339	102.6	100 (Op.45, WoO 52/14) 104 (Op.42,58) [Contrary to the published score, the metronome number in Op.42 must refer to the eighth-note not to the quarter-note.]
12	0.313	106.8	104 (Op.45, 52, 53) 108 (Op.58, WoO 52/2 + 16)
11	0.288	111.5	
10	0.261	117.0	116 (Op.45, 54)
9	0.235	123.3	120 (Op.45, 58)
8	0.209	130.8	126 (WoO 52/10) 132 (Op.54, WoO 52/15)
7	0.183	139.8	138 (Op.52, 53)
6	0.156	151.0	152 (Op.45, WoO 52/1, 52/4, 52/6)
5	0.130	165.5	160 (WoO 52/11)
4	0.105	184.7	
3	0.078	213.6	189 (WoO 52/17)

The simplicity of Weber's device appealed to many musicians. In a letter to Weber of February 14th, 1815, Meyerbeer called it "a solution of striking simplicity [*das Ei des Columbus*]" and Beethoven sent Weber's article of June 19th, 1817 (WEBER 1817c) to Nikolaus von Zmeskall with the comment:

Read this article about chronometric tempo indication. – To me this seems to be the best invention of its kind.

[*Lesen Sie dieses über die chronometrische Tempobezeichnung. – Mir scheint es noch das beste hierüber erfundene.*] (Quoted after RIEHN 1985: 73, cf. THAYER 1908)

Nevertheless, Weber's *chronometer* was soon superseded by Maelzel's increasingly more reliable metronomes: it was too imprecise for fast tempos and too cumbersome for slow tempos, as it required a string length of over three feet for tempos slower than 60 M.M. Furthermore, what Weber presented as an advantage of his device over Maelzel's machine – the fact that it produced visual signals but no distracting sounds (WEBER 1813: 442-43) – was perceived more often as a deficiency, especially when the *chronometer* was set to fast tempos or used for practising. With the advent of modern electronic metronomes, which have united both manners of tempo indication, acoustic and visual, it is not surprising that a recent attempt to revive the *chronometer* has apparently not caught on (LANGE 1976).

As an avid reader of and frequent contributor to the Leipzig journal *Allgemeine musikalische Zeitung*, Spohr certainly must have read the short anonymous notice about the benefits of a *Taktmesser* in the issue of May 5th, 1813, as well as Weber's article of July 7th, 1813, which described the advantages of the *chronometer* – an article he himself cited in a note inserted in the tenor part of Op.44 (ANON 1813b, WEBER 1813, Fig. I, SPOHR 1818). A few months later an anonymous author of an *AMZ* article described at length the construction of Maelzel's first

metronome and mentioned that Salieri had provided metronome markings for Haydn's *Creation* and that several other composers, including Beethoven, endorsed it (ANON 1813d). Less than a year later an anonymous critic made an important comment in a review of J.G. Weber's *Te Deum*:

It needs to be noted that the composer indicated the tempo on the basis of a *chronometer*, according to the simplest method, which can be understood by anyone and which has been proposed by the composer in this Journal, in issue No.27 of 1813 [WEBER 1813]. As far as the present reviewer knows, this is the first composition in which this highly valuable method has been used.

[Noch ist zu bemerken, dass der Verf. Die Tempi nach der einfachsten, jedem verständlichen, von ihm in No.27 dieser Zeitung vom Jahre 1813 vorgeschlagenen Weise, chronometrisch angegeben hat. Es ist dies, so viel Rec. Weiss, das erste Werk, wo von jener überaus schätzbaren Methode Gebrauch gemacht ist.] (ANON 1814: 680)

Spohr, who worked in Vienna as concertmaster at the *Theater an der Wien* from 1813 to 1815, must have seen not only various notices published by Weber and others in *AMZ* during these years but also the articles about the metronome in various Viennese newspapers (e.g., ANON 1813c, WEBER 1814a-b, cf. RIEHN 1985). Furthermore, during this time he came into contact with several musicians who supported the idea of inserting metronome markings in published scores, including Adalbert Gyrowetz, Joseph Weigl, Johann Nepomuk Hummel, Antonio Salieri and Beethoven (ANON 1813c-d, RIEHN 1985: 73). Spohr may even have been among the two-hundred composers to whom Maelzel presented one of his metronomes.

But most likely the decisive impulse for Spohr to follow Weber's example and use metronome markings in his compositions came during a visit to the latter's home in Mainz in January 1816 – a visit that Weber commemorated by writing a canon by Carl Maria von Weber into Spohr's album (GÖTHEL 1981: 498). Spohr's first published composition carrying metronome markings, the Potpourri Op.42 (Fig. II, below), was first advertised in December 1817 in *Journal für Literatur, Kunst, Luxus und Mode* (GÖTHEL 1981: 76). Thus it may have preceded the first published metronome markings of Beethoven, who is often credited with having been "the first important composer to use Maelzel's metronome" (RICHARDSON 1980: 223): a list of metronome markings for Beethoven's symphonies Nos. 1-8 appeared in the *AMZ* of December 17th, 1817 (BEETHOVEN 1817), and his first published score with metronome markings, the Piano Sonata Op.106, came out in 1819.

Poco Adagio. $\text{♩} = 15$ Rhein. (Mälzel Metronom 96.)

POT-POURRI

Fig. II Spohr's Potpourri on Themes from Mozart's *Entführung* and *Figaro* for Violin and Piano in E \flat major Op.42 (Leipzig: Peters, 1818) is perhaps the first published work by a prominent composer carrying metronome markings. J. G. Weber, whose *Te Deum* was published with metronome markings four years earlier (see above), was considered a minor figure even then.

At the time of the publication of the Potpourri Op.42 Spohr knew apparently both principal metronomic systems, for the published score included markings both according to Maelzel and Weber, as do the scores for several other works published between 1819 and 1823 (cf. Fig.II and Table II). Yet in four publications of 1818-21 Spohr used only Weber's method, which he may have considered then the more practical and generally acceptable one. The following note is found in the tenor part of the Songs Op.44:

The tempos in these songs as well as in several earlier works [Op.42 and Op.43] are indicated not only in the traditional manner but also in the manner proposed by Mr Gottfried Weber. One may wish to read his essay in the *Allgemeine musikalische Zeitung* [Vol.XV] No.27 of 1813 or his *Attempt at a Systematic Theory of Composition* [Mainz, 1817], p.121.

[*Die Tempi sind bei diesen Gesängen, wie auch schon bei einigen frühern Werken, neben der bisher gebräuchlichen Weise, auch noch auf die von Herrn Gottfried Weber vorgeschlagene Art bezeichnet worden. Man lese darüber seinen Aufsatz in der musikalischen Zeitung vom Jahr 1813 No. 27 oder dessen Theorie der Tonsetzkunst Seite 121.*] (SPOHR 1818,cf. WEBER 1813 and 1817d)

In accordance with Weber's recommendation, the note was accompanied by a scale of six Rhenish inches [*Maasstab von 6 Zoll Rheinisch*]. After 1823 though, Spohr abandoned Weber's method, probably realising the wider acceptance and increasing precision of Maelzel's machine.

Table II
Spohr's Compositions with Metronome Markings Published
during his Second and Third Periods (to 1834)

work (titles according to WULFHORST 1997)	metronome markings		composition	Date of publication
	according to Weber	Maelzel		
Op.42: Potpourri on Themes from Mozart's <i>Entführung</i> and <i>Figaro</i> for Violin and Piano in E \flat major	x	x	1816	1817
Op.43: <i>Brilliant</i> String Quartet No.2 (String Quartet No.11) in E major	x		1817	1818
Op.44: Six Songs for Four Male Voices	x		1817	1818
Op.45: Three <i>Gearbeitet</i> String Quartets Nos. 12-14 in C major, E minor and F minor	x	x	1818	1819
Op.49: Symphony No.2 in D minor	x		1820	1820
WoO 52: <i>Zemire und Azor</i>	x	x	1818-19	1821
Op.51: <i>Concertant</i> Rondo for Violin and Piano in G major	x		1820	1821
Op.52-53: Quintet for Piano, Flute, Clarinet, Bassoon and Horn or String Quartet in C minor	x	x	1820	1821
Op.54: Mass for Five Solo Voices and Two Five-Part Choirs	x	x	1821	1822
Op.58: Three <i>Gearbeitet</i> String Quartets Nos. 16-18 in E \flat major, A minor and G major	x	x	1821-22	1822-23
Op.63: Overture to <i>Jessonda</i> in E \flat major		x	1822	1824
WoO 53: <i>Jessonda</i>		x	1822	1824
Op.65: Double Quartet No. 1 in D minor		x	1823	1825
Op.68: <i>Brilliant</i> String Quartet No.4 (String Quartet No.19) in A major		x	1823	1825
WoO 54: <i>Der Berggeist</i>		x	1824	1825
WoO 61: <i>Die letzten Dinge</i>		x	1825-26	1827
Op.69: String Quintet No.3 for Two Violins, Two Violas and Cello in B minor		x	1826	1827
Op.73: Overture to <i>Der Berggeist</i> in D minor		x	1824	1827
WoO 56: <i>Pietro von Abano</i>		x	1827	1828

Op.77: Double Quartet No.2 in E \flat major	x	1827	1828
Op.78: Symphony No.3 in C minor	x	1828	1828
Op.79: Concertino No. 1 [Violin Concerto No. 15 (12)] in A major	x	1828	1829
Op.82: Three <i>Gearbeitet</i> String Quartets Nos. 23-25 in E major, G major and A minor	x	1829	1830
Op.83: <i>Brillant</i> String Quartet No.5 (String Quartet No.26) in E \flat major	x	1829	1830
WoO 67: <i>Vater unser</i> for Solo Voices, Choir and Orchestra	x	1829	1831
WoO 57: <i>Der Alchymist</i>	x	1829-30	1831
WoO 45: Violin Method	x	1830-31	1833
Op.85: Three Psalms for Two Four-Part Choirs and Solo Voices	x	1832	1833
Op.87: Double Quartet No.3 in E minor	x	1832-33	1833
Op.84: Three <i>Gearbeitet</i> String Quartets Nos. 27-29 in D minor, A \flat major and B minor	x	1831-32	1834
Op.86: Symphony No.4 in F major "The Consecration of Sounds: Characteristic Tone Poem in the Form of a Symphony"	x	1832	1834
Op.91: String Quintet No.4 for Two Violins, Two Violas and Cello in A minor	x	1833-34	1834

Spohr adopted metronome markings not because he followed a fashionable trend but rather because he wanted to prevent performers from taking arbitrary tempos. This is evident from the "Composer's Plea" added to the first edition of the Mass Op.54:

...I ask the performers to observe strictly the tempos specified by means of Maelzel's metronome numbers and pendulum lengths according to Gottfried Weber's method, as well as the indicated nuances of piano and forte...

[*Ferner bitte ich, sich an die nach Mälzel's Metronom und nach Pendellänge, auf Gottfried Weber'sche Weise, bezeichneten Tempi, sowie an die vorgeschriebenen Nüancen von p. und f. streng zu binden...*] (SPOHR 1822)

Similarly, in an article in *AMZ* Spohr reminded the performers of the Mass "to...observe strictly the indicated nuances of piano and forte and the tempos indicated by means of metronome numbers, because only then [the composition] can have the intended effect" (SPOHR 1821: 820).

For Spohr, metronome markings were not an end in themselves: executing the letter of the score was merely a prerequisite for realising its *spirit*. After hearing an excessively fast performance of the last *Allegro* of the Finale I of *Don Giovanni* in Paris in 1820, he made the following comment:

If one hears a magnificent piece of music lose some of its impact from a bad choice of tempo, one wishes again that the method of specifying tempos by means of Maelzel's or Weber's methods (or, best, both together) would finally become generally accepted. Then, however, the conductors would need to observe such markings diligently and not insist on following their own feeling, as they do now.

[*Wenn man so einem herrlichen Musikstücke durch falsches Tempo seinen Effekt schmälern hört, wird von neuem der Wunsch rege, daß doch endlich die Bezeichnung der Tempi auf Mälzelsche oder Webersche Weise (oder besser noch auf beide zugleich) allgemein werden möchte. Freilich müßten die Direktoren sich dann auch gewissenhaft danach richten und nicht, wie jetzt, ihrem eigenen Gefühle unbedingt folgen wollen.*] (SPOHR 1820: 106)

The application of metronome markings divides Spohr's oeuvre into two categories of compositions. Metronome markings are found primarily in those works which require the performer to subordinate himself strictly to the composer's intentions: orchestral, choral and

operatic works as well as chamber works representing the type his contemporaries called *gearbeitet*, that is, quartets, quintets and double quartets inspired by the model of Haydn, Mozart and Beethoven. Spohr used metronome markings less often in works which give more liberties to the performer, that is, virtuosic chamber compositions, concertos, *symphonies concertantes* and songs (exceptions are the Potpourri Op.42 and the *quatuors brillants*, which in this respect follow the aesthetics of the *gearbeitet* quartets).

Many studies have been devoted to explanations of Beethoven's metronome markings, many of which seem excessively fast to modern performers. No such general tendency characterises Spohr's metronome markings. Two unusual markings, those in Op.58/1/i and Op.42, have been explained plausibly as misprints in Table I. Some of the markings are slower, others faster than one might expect. The Rondo Op.51, arranged from the third movement of the Sonata Op.115, a typical finale in 2/4 with dotted rhythms, is considerably slower than modern performers usually take it, with the eighth note equalling 126. The 6/8 section in the Potpourri Op.42, in contrast, featuring difficult sixteenth-note passages for both violin and piano, is to be played at surprisingly fast speed, 96 to the dotted quarter. But there can be no doubts about the accuracy of Spohr's metronome markings, and the assumption made occasionally that some were added by his publishers still requires proof.

Spohr's metronome markings are a valuable source for early nineteenth-century performance practice (cf. Fig.III on Page 11). Especially instructive to performers of his violin music are differences in tempos for movements representing seemingly the same type of character. Spohr's polonaises range from 88 M.M. in the *Alla Polacca moderato* of the Quartet Op.82/II/iii to 92 M.M. in the *Alla polacca* of the *Quatuor brillant* Op.83/iii to 104 M.M. in the *Alla Polacca* in the Concertino Op.79/iii. The wide spectrum of metronome markings for opening fast movements in 4/4 (Table III) corroborates that it is impossible to reduce Spohr's music to certain 'standard types'. Through his playing he apparently highlighted the nuances of his music and counteracted the impression of monotony and uniformity that critics have found especially in his late oeuvre. His metronome markings can teach us how to avoid stereotyped interpretations, and modern-day performers are well advised to emulate Spohr in basing their interpretation on the *spirit* or *character* of the composition and in grasping each work in its individuality (WULFHORST 1998a-b and 1999).

Table III
Metronome Markings in Opening Fast Movements
in 4/4 in Spohr's Oeuvre

<i>metronome marking for the quarter</i>	<i>movement</i>	<i>work (cf. Table II)</i>
100	<i>Allegro moderato</i>	Op.68
104	<i>Allegro</i>	Op.43, Op.52-53
108	<i>Moderato</i>	Op.58/II
108	<i>Allegro</i>	Op.69
120	<i>Allegro</i>	Op.45/1
126	<i>Allegro</i>	Op.55 (cf. SPOHR [1833]), Op.65, Op.128
138	<i>Allegro vivace</i>	Op.77

Current research is only beginning to reveal the impressive scope of Louis Spohr's musical activities: he worked as a composer, violin virtuoso, chamber musician, concertmaster, conductor, organiser of music festivals, musical journalist and pedagogue. His role as one of the first advocates of the metronome among early nineteenth-century musicians and as a pioneer of

the modern aesthetics of performance shows in yet another way how deeply he shaped the musical profile of his age.

Siebentes Concert von Rode.

ERSTES SOLO.

Allegro moderato. ♩ 88.,
Solo. + 0 3

The image shows a musical score for the first solo of Rode's Seventh Concerto. It consists of three systems of music, each with a violin part (top staff) and a piano accompaniment part (bottom staff). The tempo is marked 'Allegro moderato' with a metronome marking of 88. The score includes various dynamics such as *f*, *p*, *mf*, and *dimin.*. There are also fingerings and bowings indicated throughout the piece.

Fig. III The metronome markings for Rode's Concerto No.7 in Spohr's Violin Method (1833) represent an important source for early nineteenth-century performance practice. They carry a great degree of authenticity as Spohr himself heard a performance the composer gave of the work in Brunswick in July 1803, which left a deep impression on him: "Soon I began to make strong efforts to adopt Rode's playing style as far as possible by carefully studying all of his compositions that I had heard him perform at court and in private circles. My attempts were very successful, and until I gradually formed my personal style of playing I remained probably the most faithful copy of Rode among all young violinists of the time" (SPOHR 1968/I: 66).

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