Solfège and Musical Sight Reading Skills in a European Context

Damien Sagrillo

The Oxford Dictionary mentions three different terms concerning solfège, i.e., “solfège”, “solfeggio” and “solmization”, the first two being used as synonyms for an “exercise in singing sol-fa syllables”.\(^1\) A further term is derived from the three: “Tonic Sol-Fa”, or its short form “Sol-Fa”, a method for musical learning developed in the United Kingdom in the 19th century. “Solmization” is defined as a method of singing notes according to syllables.\(^2\) Consequently, “solmization” encompasses more than just a singing exercise, and is an overall teaching method for music. We find these terms, with the exception of “solfège”, in more comprehensive articles in the New Grove Dictionary. Furthermore, “solfatio” is also brought up as a synonym of “somlization”.\(^3\) The articles, in particular “Solfeggio” and “Solmisation”, highlight that a clear distinction between both has some problems but they also reveal that the former makes reference to the more practical aspect of singing, and the latter addresses the subject in its theoretical and historical dimension.

By inventing the solmisation syllables ut, re mi, fa, sol, la at the beginning of the 11th century,\(^4\) Guido of Arezzo (c. 990 – 1050 CE) found the philosopher’s stone of music education. The imperfection of liturgical chant learning was the motivation for Guido to become active as a music educator. Angelo Rusconi describes the threefold ambition of Guido’s motivation:

“The pedagogical method of Guido of Arezzo is based on three inseparable components: the knowledge of the theoretical basis of music, the notation in lines, the memorisation of tones and intervals which allows to intonate with exactitude the notated melodies (and, vice versa, to write down a melody heard).”\(^5\)

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2 Cf. ibid. pp. 1771–1772, articles “Sol-Fa”, “Solfeggio” and “Solmization”.
Indeed, Guido proposed the unambiguity of musical notation, still valid today, in the sense that he replaced the learning of Catholic chants by heart with a more systematised method of musical reading. Even if the use of neumes as a kind of predecessor of “written” music provided some support to vocal practice, an inconclusive notation without a landmark led to uncertainty or even to controversies among musicians regarding the best possible interpretation.

It should not be necessary to mention that providing notes with names should not only be credited to Guido of Arezzo. Pitches were already named in the pre-Christian era in China, Bali, India and Ancient Greece.⁶

In the following sections, I will consider some of the decisive milestones of solfège rather than give a comprehensive history of it from Guido of Arezzo to the present day.

1 Historical Background. Reading, Writing, Listening

In early music, sight-reading was not possible, and learning melodies by heart had the consequence of church songs becoming alienated in space and time. Guido had a very clear view of this problem when he observed that church singers changed things at their discretion (“... pro sua ipsi voluntate multiplet commutent”).⁷ This situation can be seen to be quite similar to the oral tradition of folk song. Before their collection in songbooks, folk songs were orally transmitted from generation to generation. Solfège enables an intellectual and autonomous learning of music instead of memorising chants. In his treatise on the unknown chant (“Epistola de ignoto cantu”), where he introduces the tone syllables and explains the practical use of solmization, Guido highlights a didactic principle of solfège that has lost none of its relevance even after 1000 years:

“Hence, unheard melodies can be properly sung, or an unwritten melody can be quickly written down. This rule will help you best.”⁸

Today solfège courses still combine listening to, and singing and writing of, melodies, often completed with music theory, as we will see below.

Guido was also involved in the development of staffs, but apparently not alone.⁹ Considering the aspect of musical practices on the threshold of the second millennium,

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at that time, religious songs could be considered as a kind of globalised music and the didactic mediation of it as indispensable.

Among the numerous methods of music education, solfège has the longest tradition, a tradition that is based on the vocal component of musical practice. Hence, Guido of Arezzo conveys his preference for instrumentalists in a very original way: he dismisses singers as “beasts” in contrast to instrumentalists, who are the real experts in music. His disregard for singers culminates in the statement that the silliest of all men are the singers. Although it may be taken out of context, it describes a centuries-old problem, namely musical literacy as a prerequisite for learning an instrument. However, Guido’s disrespectful attitude towards singers is aimed at the way of learning by heart, i.e., a missing didactic concept, rather than at the performer in person.

Over the following centuries, the controversy of the primacy of instrumental music over singing, or vice versa, determined the discourse in music pedagogy. Barely three centuries later, Jean de Muris compared instrumental and vocal practice and emphasises that, at the beginning of a career, a singer should use an instrument (“in organis etiam cantare laboret”), but he also concedes that the dignity of the human voice is above all other instruments because it combines words and melodies.

The extension of a hexatonic to a heptatonic scale and the addition of the tone syllable “si” is attributed to Ramos de Pareja. He wrote about chromatism in his treatise “Musica practica” (1482) as did Pierre Maillart and Marin Mersenne (“les Tons…”, c. 1570).

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12 Literally “who has no flexible voice”; “flexibilem vocem non habeat”.

13 Cf. Gerbert, Martin (ed.), *Scriptores ecclesiastici...* 3, p. 216; Source: “Summa Magistri Ioannis de Muris”, original text: “Et si flexibilem vocem non habeat, sed dissonus fuerit, et si favorem forte, vel etiam adiutorium doctoris objectum omiserit, curam impendat, instrumenta musica exerceat, et saepius eis utatur, qualia sunt monochordum, symphonia, quae dicitur organistrum, in organis etiam cantare laboret.”

14 This treatise was written between 1274 and 1312 and ascribed to J. de Muris; cf. Michels, Ulrich, “Die Musiktraktate des Johannes de Muris”, in: *Beihefte zum Archiv für Musikwissenschaft* 8, Wiesbaden 1968, pp. 16–17.

15 Ibid. p. 199, original text: “Sed inter caetera instrumenta musicalia instrumentum vocis humanae est dignissimum, eo quod profert et sonum et verba, cum caetera de sono tantum serviant, non de voce, et universalis est.”


However, should the addition of a seventh degree not be seen as a kind of evolution that also involved the beginning of alterations and chromatism? All these innovations occurred between the beginning of the 15th and the end of the 16th century. They resulted from the growing demand for a seventh (and eighth) degree, rather than arising from the achievement of an individual personality.

The development of *solfège* as a discipline for acquiring musical skills took place in Italy. R. O. Gjerdingen mentions in this context a social aspect that should not be ignored: conservatories were not founded to conserve music, but orphans. Learning music became a way to survive in a world of church, courts and aristocracy. Conservatories, where *solfège* was the main subject, found out that they could make money with their well-trained musicians. The conservatories of Naples became the locus of this tradition. As a consequence of its growing success, it exported *solfège* to Europe, especially to the conservatoire of Paris, which was founded in 1795 as a music institution in today’s understanding. Gjerdingen describes the *solfège* teachers as “great maestros”, who were “famous composers”, “famous singers” or “retired castrati”.

Among the authors of the collections, he lists not only Italian masters, such as Giuseppe Aprile (c.1709 – 1785), Leonardo Leo (1694–1744), Niccolò Jommelli (1714–1774), but also the German Johann-Adolf Hasse (1699–1783) and the Austrian Wolfgang A. Mozart.

Musical artistry, or at least the preparation for it through *solfège* (hence the didactic aspect) was also the ulterior motive for Mozart when composing a series of four vocalises with piano accompaniment around the year 1782. He did this for his future wife, Constanze, as a preparation for a performance of the C minor Mass (KV 427). It was built on the Italian tradition, which aimed to develop vocal mastery rather than musical reading ability, as is often the case in *solfège* courses nowadays. Mozart composed in this tradition but undoubtedly followed the German composer, Johann-Adolf Hasse, who also composed *solfège* exercises during the 1730s for his wife.

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In 1716, Johann Heinrich Buttstett argued against Mattheson and his progressive ideas as articulated in “Das neu-eröffnete Orchestre”\textsuperscript{24} (1713). The title of the Buttstett’s treatise was “Ut, mi, sol, re, fa, la, tota musica et harmonia aeterna”.\textsuperscript{25} Guido’s tone syllables in the title may be a superficial insinuation, but the title is indeed a symbol of what, today, has also become a problem of solfège: its backwardness, because it “advocated a return to centuries-old traditions regarding the church modes and Guidonian solmization”.\textsuperscript{26} The treatise, however, favoured an approach to music as scientific, mathematical discipline, as envisaged in the “Seven Liberal Arts”. The consequence of this was that music was eliminated as an academic discipline from the curriculum. Finally, mainly through the influence of Mattheson, music found its way back to universities, but as an artistic discipline.\textsuperscript{27}

The vogue for learning in the Italian style made its way to France where, according to the “Dictionnaire de musique moderne”, the famous “Solfèges d’Italie” was published for the first time in 1784, before the Conservatoire of Paris issued its own “Solfège” (“Le solfège du conservatoire”), in three volumes. Thereafter, both course books served conjointly.\textsuperscript{28} Indeed, the catalogue of the “Bibliothèque nationale de France” lists for 1799 a book entitled “Principes élémentaires de musique suivis de solfèges [Musique imprimée] : arrêtés par les membres du Conservatoire, pour servir à l’étude dans cet établissement: première partie / par MM. Agus, Catel, Cherubini, Gossec, Langlé, Lesueur, Méhul, et Rigel” edited by the Italian-born composer Giuseppe Agus (1725?–1803).\textsuperscript{29}

\begin{itemize}
  \item \textsuperscript{24} Cf. Mattheson, Johann, \textit{Das neu-eröffnete Orchestre}, Hamburg 1713.
  \item \textsuperscript{25} Cf. Buttstett, Johann Heinrich, \textit{Ut, mi, sol, re, fa, la, tota musica et harmonia aeterna}, Erfurt/Leipzig 1716.
  \item \textsuperscript{26} Damschroder, David; Williams, David Russell, \textit{Music Theory from Zarlino to Schenker: A Bibliography and Guide}, Hillsdale 1990, p. 43.
  \item \textsuperscript{28} Cf. Castil-Blaze, \textit{Dictionnaire de musique moderne} 2, Au magasin de musique de la Lyre moderne, Paris \textsuperscript{21}1825 (‘1821), pp. 259–260.
  \item \textsuperscript{29} Cf. online catalogue of the “Bibliothèque nationale de France” with the search string “Le solfège du conservatoire”.
\end{itemize}
Concerning the year of publication of “Solfèges d’Italie” and according to the catalogue of the “Bibliothèque nationale de France” the gazette “Mercure de France” indicates 1772 as the first edition.³⁰ “Solfèges d’Italie” became the standard for solfège instruction. It was regularly reissued in subsequent years³¹ and republished works of Italian masters, such as solfège lesson N° 63 of Leonardo Leo (1694–1744) at the beginning of the second part (Figures 1 and 2).

³¹ Cf. online catalogue of the “Bibliothèque nationale de France” with the search string “Solfèges d’Italie”.

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Figure 1 – “Solfèges d’Italie”, solfège lesson N° 63, p. 31 (beginning of the second of four volumes).
In 1834, the French violinist and composer, Pierre Baillot (1771–1842), published his method for violin. He summarises his opinion that a pupil who plays the violin without having followed solfège courses would be condemned to practice music without the know-how and to play the violin without being able to. A few lines before this he provides more detailed didactic information: the hint of combining singing, sight-

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34 Cf. Baillot, Pierre, L’art du violon, Mainz/Antwerpen, undated (1834?) p. 242; original text: “Faire entreprendre l'étude du violon à l'élève avant qu'il n'ait appris à solfier, c'est le condamner à lire la musique sans-la savoir, et à jouer du violon sans le pouvoir.”

35 Cf. ibid. p. 241; original text: “Avant de commencer l'étude du violon, il est indispensable à solfier. La connaissance des notes, des valeurs, des temps, des clefs, de tous les signes, et l'application que l'on doit faire de cette connaissance, en chantant ou nommant les notes et divisant la mesure, demande trop d'attention pour que l'élève puisse en distraire- une partie au profit des détails du mécanisme d'un instrument. Si, par des études suffisantes dans ce genre, il s'est rendu ce qu'on appelle bon musicien, il a
reading and writing with music theory as a primary basis for learning an instrument appears for the first time, between the lines. If acquiring the technique of an instrument requires too much time, the student should not also be confronted with subjects of secondary importance, such as reading music, hearing it and understanding it. This statement is in accordance with Guido of Arezzo. His first purpose is to make music readable. It then incorporates musical dictation and then the idea of creativity. Although Guido mentions that music theory should be a part of the solfège curriculum (see above), he never developed a theoretical music course. He emphasises instead that musical practice and creativity allows students to better understand musical relationships and musical judgement.36

![Excerpt of p. 73 of Glover’s “Scheme”](image)

In the United Kingdom, it was Sarah Ann Glover (1785 – 1867) who invented the “Norwich Sol-fa” solfège system, improved in the mid-18th century by John Curwen (1816 – 1880). It is based on a transposing scale, called “movable doh”. In 1812, Glover taught singing based on the traditional scale names adapted to English. In 1828, she

déjà fait pour le talent la moitié du chemin; quelque faible que puisse être ce talent par la suite, il sera toujours utile s’il repose sur cette base, tandis que le talent doué des plus beaux moyens et des plus rares qualités ne fera qu’un emploi imparfait de ses facultés, s’il manque d’instruction première.”

37 Cf. Glover, Sarah Ann, Scheme for rendering Psalmody congregational; comprising a key to the sol-fa notation of music, and directions for instructing a school, London 21835, p.73.
published a “Scheme for rendering Psalmody congregational; comprising a key to the sol-fa notation of music, and directions for instructing a school.”

The excerpt in Figure 3 clarifies two points:

1) The system can be used with only one letter, “si” being replaced in English by “te”, avoiding two “s”, one for “sol” and one for “si”.
2) “Do” is movable, i.e., it always represents the fundamental. It is also called “relative solmisation” and goes back to Jean-Jacques Rousseau, who invented a number notation where “1” was always the fundamental tone.

John Curwen’s aim was to make music reading as simple as possible. His improvement to Glover’s concept was the modulator, a kind of modulation table that improved singing skills. A second improvement was the invention of hand signs that later inspired Kodály. In the film “Close Encounters of the Third Kind”, Steven Spielberg provided a famous reference to this method of showing notes when he made the aliens communicate the main motif of re-mi do-do sol with hand signs.

Zoltán Kodály (1828 – 1967) did not invent something completely new. He adapted Curwen’s method to the needs of Hungarian music education by combining it with Hungarian folksongs. His idea was that the knowledge of one’s nation’s intangible heritage, i.e., folk music, and music education belong inseparably together. Kodály’s concept surely deserves more discussion. At this point, we only mention the comprehensive scholarship about Kodály and his concept. The same applies for Agnes Hundoegger (1858 – 1927), who adapted Curwen’s method for Germany.

Today, about a millennium after Guido’s revolutionary approach, solfège has evolved into a powerful tool for music literacy. However, it is also claimed that it is too rigid and too old-fashioned in comparison to electronic musical learning facilities and that, as an educational concept, it is not appropriate in the 21st century.

Although solfège is not included in the UNESCO list of intangible cultural artefacts of humankind, it has a long tradition and is an example of cultural European heritage. The only teaching concept in this UNESCO list is the Táncház-method (Táncház means “dance house”), an example which originated in Hungary with a focus on teaching

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42 Cf. Hundoegger, Leitfaden …
43 The description of problems associated to the solfège method will be underpinned with statistics and interviews with concerned people below in the article “Solfège as a Reason for Withdrawals of Music School Pupils” in this book.
dance and music.\textsuperscript{44} Considering that the Táncház-method is the only method of learning included by UNESCO, it highlights the role of music in the learning process. Undoubtedly solfège also deserves this merit because it is widely spread through European times, regions and language barriers.

On the other hand it may be considered as a barrier to music diversity and to music education, according to UNESCO, especially in relation to the informal musical learning and globalised music of today, often considered as commercial music or the musical mainstream, easy accessible by mass media and easy to cover and (re-)compose by “garage” bands.\textsuperscript{45} In a discussion with the director of the Kodály-Institute of the Liszt-Ferenc-Academy of Music in Kecskemét, Hungary in February 2015, Professor László Norbert Nemes mentioned that the Institute is trying to find ways to adapt the solfège method of Zoltán Kodály to today’s needs, for example, in providing “apps” for electronic devices to keep the legacy of Kodály up to date. In the same context, in January 2015, the coordinating scholar of the Forschungsstelle Appmusic\textsuperscript{46} at the Universität der Künste in Berlin highlighted the existence of about 30,000 music apps for the Apple iPad, about 7,000 for Android tablets and about 1,000 for Windows tablets. Thus, in only a few decades, music education has arrived at a new milestone, where the challenges of 1,000 years ago have changed considerably and where new strategies of music learning have to be invented and provided.

\textbf{Solfège Today. Problems and Negative Consequences}

At least in France, solfège seems to be the focus of criticism as long as music education is institutionalised.\textsuperscript{47} It is a discipline where the music learning process can easily be quantified.\textsuperscript{48} Therefore, it is eminently suited to the separation of pupils into “talented” and “not talented” but this inevitably leads to a controversy between traditionalists and reformers. Antoine Hennion carried out two interviews with one representative of each of these groups. Hennion’s interview with a solfège professor of the Paris conservatoire, the traditionalist, yields the statement of Seiji Ozawa: preparing a contemporary composition with the “Orchestre de Paris” only demands two hours, while it takes months to come to the same result with a German orchestra.\textsuperscript{49} This is surely a positive outcome of solfège: quick readability of music, saving time and, in our materialistic world, saving money. Perhaps the performance of a German orchestra

\textsuperscript{46} Cf. <www.forschungsstelle.appmusic.de>, 07.2015.
\textsuperscript{48} Cf. ibid. p. 75.
\textsuperscript{49} Cf. ibid. pp. 60–61.
might be better because the work could go deeper and, it could be said that the most famous orchestras in the world probably do not originate from France. Of course, this statement should not be exclusively attributed to the solfège system, but also to more general factors regarding cultural policy in the several countries. The reformer’s first argument in Hennion’s interview is that solfège addresses amateurs first and foremost, and that active music practice should give priority to passive solfège absorbing.\textsuperscript{50}

Being aware of the problem, in 1977, the French ministry of culture proposed a new curriculum for solfège. As a first step, the term “solfège” was replaced by “formation musicale” (musical training). The reason was that, over the years, solfège became almost an end in itself, with specific and ever increasing pedagogical material without any musical substance, offering a narrow insight into the art of music. Slowly but steadily solfège teachers forgot the goal of their discipline, e.g., preparing pupils for further instrumental or vocal studies. The ministry of culture provided the reasoning behind implementing the change:\textsuperscript{51}

“In future, it will no longer be required to have completed, in a prescribed time, courses in musical training [e.g., “formation musicale”] to be authorised to begin instrumental courses.”\textsuperscript{52}

The new motto became “to play before to read”. Solfège should be linked to the musical context, and music theory should be deduced from it.\textsuperscript{53} It was considered that solfège delivered “knowing apes” more than “complete musicians”.\textsuperscript{54}

In light of an almost 40 year old statement of official French policy of culture, music teachers in specialised music education should give up their claim of solfège as the main goal and conceive it as an aid for pupils and not as a burden.\textsuperscript{55} The main interest of the reformers of solfège was (or still is) to reconcile solfège with music by providing “coherent and interesting music pieces and to utilise instruments in the courses”.\textsuperscript{56}

However, even a national administration can capitulate in the face of a strong lobby with the consequence that the problems persist today. Solfège has become a topic in the

\begin{flushright}
\textsuperscript{50} Cf. ibid. pp. 69–73. \\
\textsuperscript{51} Cf. Ministère de la culture, \textit{Etudes de formation musicale}, <http://www.apfm.asso.fr/download/R%C3%A9forme%20de%20la%20Formation%20musicale%201978.pdf>, 07.2015. \\
\textsuperscript{52} Ministère de la culture, \textit{Etudes de formation musicale}, p. 3; original text: “Dorénavant, il ne sera plus exigé d’avoir suivi pendant un temps déterminé, les cours de Formation Musicale pour être autorisé à entamer le cursus des études instrumentales.” \\
\textsuperscript{55} Cf. ibid. p. 51. \\
\textsuperscript{56} Ibid. p. 23. 
\end{flushright}
famous newspaper, “Le Monde”, with the advantages and disadvantages being discussed in two articles. While Muriel Radault requires us to “Stop discouraging the musical vocation of children”, Constance Clara Guibert claims, “Let us not be afraid of solfège!” She arrives at the conclusion that solfège may be hard, but it is indispensable. Indeed, musical literacy needs time, and this time has to be invested in addition to regular schooling. On the other hand, Radault, herself a music teacher, lists the existing problems with solfège:

1) The objective of music pupils is to learn an instrument, not solfège.
2) There is an immense weekly workload in class for up to eight consecutive years.
3) The inappropriateness of the curriculum given the psychological development of a child that she describes as “premature intellectualisation”.
4) A curriculum of fuzzy outlines, barely understandable for parents without any musical education.
5) A high drop-out rate.

Odette Gartenlaub (1922–2014), composer, solfège professor at the conservatoire in Paris and author of several solfège manuals, states that the problem also lies in the pedagogical training of solfège teachers. “Bad solfège” with a “good composition” means that pupils turn their back on music.57

**Outlook**

A comprehensive history of solfège remains to be completed. Malte Heygster and Manfred Grunenberg provide a 15 page summary of landmarks in solfège education,58 and we would also like to point out the corresponding articles in the New Grove Dictionary59 and in Musik in Geschichte und Gegenwart (MGG).60

A history of solfège could begin with its roots in Italy, initiated by Guido of Arezzo, as a new method of reading. It could then continue with the first conservatoires in Naples and Venice as a method of vocal performance. The history of solfège is also strongly linked to France and the French-speaking world as a way of general music education.

The export of the solfège method via the Anglo-Saxon world by Sarah Ann Glover and James Curwen to Germany by Agnes Hundoeegger brought an Italian-French music tradition to countries unfamiliar with these musical practices.

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In the 20th century, Kodaly adopted *solfège* in Hungary as a method combining both primary vocal instruction and basic musical learning. Kodaly’s *solfège* method is the most widely documented and researched and is acknowledged worldwide.

The Internet offers “Moments of Solfeggi”, a developable series that offers an insight into the instructional part of *solfège*.\(^{61}\) The University of Nottingham is carrying out a research project on the *solfège* tradition.\(^{62}\)

Today, *solfège* remains a discipline in music schools and conservatories in Western and Southern Europe. Many music pupils have to learn it, but with declining enthusiasm. Mass media and electronic facilities complicate the lives of traditional teaching approaches ex cathedra, and often frustrate pupils more than they motivate them. As we have already pointed out, a way forward could be to take the profit of electronic apps and to make *solfège* more interactive. With such an attractive starting point, music education for beginners could gain considerably.\(^{63}\) To achieve this step into the 21st century, the opportunity is ever present, or as Hennion states, “…the reform is talkative, the tradition keeps quiet”.\(^{64}\)

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\(^{63}\) Please consider also the final discussion in our text “Solfège and Withdrawals of Music School Pupils” in this book.

\(^{64}\) Hennion, p. 81; original text: “… la réforme est bavarde, la tradition se tait.”